UNITED STATES EXPORT–IMPORT BANK AND THE ENVIRONMENT

Y 4. B 22/1: 103-119

United States Export-Import Bank an...

HEARING

BEFORE THE

SUBCOMMITTEE ON
INTERNATIONAL DEVELOPMENT, FINANCE, TRADE
AND MONETARY POLICY

OF THE

COMMITTEE ON BANKING, FINANCE AND
URBAN AFFAIRS
HOUSE OF REPRESENTATIVES

ONE HUNDRED THIRD CONGRESS

SECOND SESSION

FEBRUARY 23, 1994

Printed for the use of the Committee on Banking, Finance and Urban Affairs

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UNITED STATES EXPORT-IMPORT BANK AND THE ENVIRONMENT

WEDNESDAY, FEBRUARY 23, 1994

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON INTERNATIONAL DEVELOPMENT,
FINANCE, TRADE AND MONETARY POLICY,
COMMITTEE ON BANKING, FINANCE AND URBAN AFFAIRS,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:03 a.m., in room 2128, Rayburn House Office Building, Hon. Barney Frank [chairman of the subcommittee] presiding.

Present: Chairman Frank, Representatives Watt, Fingerhut, McCandless, Huffington, Nussle, and Castle.

Chairman FRANK. The hearing will come to order.

This is a hearing of the Subcommittee on International Development, Finance, Trade and Monetary Policy on the environmental procedures of the Export-Import Bank.

This subcommittee spent a good deal of time last year addressing the question of the environmental performance of the World Bank and its affiliated institutions. That focus was occasioned by the fact that there was a requirement that we deal with the replenishment request for the International Development Association, which is the soft loan window of the World Bank.

As a result of discussions which this subcommittee engaged in—with the support of the chairman and others from the Full Committee—and I should point out that these were wholly bipartisan with the full support of people on both sides—a set of events occurred in which steps were taken by the World Bank which we think will improve its environmental performance. In particular, they will increase the ability of people in nongovernmental organizations concerned with the environment, with poverty, with the role of women, and with several of the other important issues that have not always gotten the attention in the international development financing process that they deserve, all of these groups will have greater access to information, and they will have an independent review panel to which appeals can be made.

We then turned our attention to the Export-Import Bank, because historically the Export-Import Bank was insufficiently attuned, in my judgment, to the environmental aspect. Concern for the environment was not a significant part of its activity when it started. Indeed, concern for the environment wasn't a significant part of anybody's activity when the Export-Import Bank started. And I don't think enough attention has been given over the years to making sure that this awareness developed.

So our focus now is to have the discussions begin—they aren't beginning, they have begun. We have had some conversations, members of the subcommittee staff, myself, and others, with Mr. Brody of the Export-Import Bank, and we have talked with some of the environmental groups. This is the beginning of the formal part of the process in which we are going to talk about what the Export-Import Bank has been and should be doing about its environmental issues.

Let me add, obviously, there is a great deal of interest in one particular project, the plant at Temelin. These hearings were planned without specific regard to that. Obviously, witnesses are free to talk about whatever they want to talk about.

Once the Supreme Court decided in the *Chadha* case in the early 1980s that the legislative veto as a device violated the Constitution of the United States, they vitiated the ability of the Congress to approve or disapprove specific projects other than by passing laws which are the same as any other law. I mention that because there has been some, I think, lingering uncertainty about that.

As I said, people are free to talk about what they want to talk about, but the focus of this hearing is the general issue of the environmental performance of the Export-Import Bank and, in particular, what kind of procedures we can have in the future to improve it.

I should add as a general matter, there will be people here who are interested in the general subject, people interested in Temelin, people from the Czech and Austrian embassies I know, who have expressed concern.

Our procedure here is to leave this record open. So if anyone hears something he or she does not like, he or she may then submit to this subcommittee any statement in rebuttal or in further explanation or in counterrebuttal. I think we serve the process best by keeping it open.

So if you have anything you like to add, we have at least a couple of weeks between the end of this hearing and when we will close the hearing record; and if you get in touch with Dr. Key or Mr. Shaul at the subcommittee, we will be glad to arrange to include any of your information. Other than that, we expect to proceed in an orderly fashion.

We will hear from all the witnesses. We will then have questions. And I want to thank Mr. Brody for agreeing to the procedure that we have instituted here. I know the norm is sometimes to have the executive branch witness testify in splendid isolation, be questioned and depart, and then to allow the rest of the world to testify. We have found it is very useful to have a collegial situation in which people can exchange ideas and comment on each other's issues, and that is what we have here with Mr. Brody and several people who have been leaders in the environmental field.

So, with that, we will begin with Mr. Brody, the chairman of the Export-Import Bank. The normal rules apply. We all know why we are here, we all like each other, we all admire each other, and we will get right down to the subject.

Mr. Brody. I am sorry, excuse me, Mr. McCandless, do you have an opening statement?

Mr. MCCANDLESS. Mr. Chairman, I think this is an appropriate subject for our subcommittee. It is timely, and I look forward to the testimony.

Chairman FRANK. Thank you. Mr. Brody.

STATEMENT OF KENNETH D. BRODY, CHAIRMAN, UNITED STATES EXPORT-IMPORT BANK

Mr. BRODY. We have a new environmental mandate in the Ex-Im Bank charter. In addition, the Clinton administration is committed to global environmental leadership. We take our environmental responsibilities seriously.

The environmental procedures that were in place when I came to the Bank were seriously outdated. They have to be substantially strengthened, and we are in the process of substantially strengthening them.

We have spent a significant amount of time learning about environmental review procedures from other Federal agencies and multilateral institutions. We have retained an expert environmental consulting firm to help us develop sound environmental review procedures. The work has already begun, and we expect it to be completed within a few months. In addition, we have started a dialog with a number of environmental groups so that they can help us become more knowledgeable.

We are also actively participating in an ongoing interagency effort to upgrade the environmental procedures for Federal actions having significant environmental effects abroad. In the meantime, we have put interim environmental procedures in place which differ significantly from what was done before.

Our engineers now are preparing brief environmental evaluations identifying the principal environmental effects for each case involving financings of $10 million or more. These are the general procedures that we expect to follow when we develop our new environmental procedures.

We have to obtain essential environmental information about proposed cases without taking so long to collect it and review it that we jeopardize U.S. exports. We need to develop streamlined procedures that provide us with the necessary information, despite our limited staff resources. This will mean that we will be looking to exporters and borrowers, as well as to environmental groups, to provide us with relevant environmental information early in the decision-making process.

Congress has told us that we may withhold financing on environmental grounds. There are some projects that are so environmentally bad that we will say, no, even if some other country is willing to step in and support the project, because the U.S. government should not be associated with it. The Mount Apo geothermal facility in the Philippines is a recent example of a project that, based upon the environmental information we currently have available, seems to fall into this category. In short, we're taking a new approach at Ex-Im.

At the same time, we need to work actively with other export credit agencies to create a level playing field in the environmental area.

The best way to safeguard the environment without sacrificing U.S. exporters is to make sure that all major exporting countries apply similar environmental procedures and standards.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Brody can be found in the appendix.]

Chairman FRANK. Thank you, Mr. Brody. Who is next? Ms. Bramble. We are not doing alphabetical order totally.

STATEMENT OF BARBARA J. BRAMBLE, DIRECTOR, INTERNATIONAL PROGRAMS DIVISION, NATIONAL WILDLIFE FEDERATION

Ms. BRAMBLE. Well, maybe I should do something quite radical here and just say I absolutely agree with what Mr. Brody just said, and stop. But——

Chairman FRANK. But you are not under oath, so it's OK.

Ms. BRAMBLE. We have had some very good discussions with both him and other officials of the agency. I am really pleased about the progress, the things they are thinking about doing, and the new approach that they are taking. We have a few ideas that might be useful for that, but most of them, of course, will require some further development. I will just outline a couple of them here.

As we have looked at the functions and the operations of the Export-Import Bank, most of the people that I know who have been looking at this from the environmental point of view do not think that there is a fundamental difference between the way that the Export-Import Bank goes about doing its business and other institutions who have different but maybe analogous problems in complying with environmental impact assessment requirements. So we do think that it will be entirely possible to fashion appropriate procedures that will work within the context of what this agency does that will allow it to look at the relevant information.

I think a lot of the problems that we have looked at and seen as the history of this agency are, hopefully, not relevant anymore, so I am not going to go through any long indictment of the way this institution in the past has really looked at environmental assessment maybe as a side show or as a nuisance instead of part of the job it is supposed to do. As I understand, that era is over and the Bank, under new leadership, is taking a really responsible view toward what its goals are.

But I would urge the subcommittee to consider whether it would be useful to actually define that in the legislation. If environmental review is seen as guidelines for operations, that is one thing, but it would be very different if the Export-Import Bank's very charter explained that its goal was to promote exports of equipment, material, technology, goods and services, which support or promote sustainable development. That makes an entirely different kind of goal for the agency, and I would like to recommend that that be looked at by the subcommittee as a future legislative proposal.

The reason I say that is that we should really be considering all of our work now as we review what government agencies are doing, as this is a new era. It is the post-UNCED era; it is not just the post-cold war era. And I would like to suggest that——

Chairman FRANK. Post what? I missed a word.

Ms. BRAMBLE. Excuse me? Post-UNCED, post-Earth Summit.

We have now, all nations, agreed to promote Agenda 21, to be paying attention to the sustainable development consequences of everything we do, and therefore I think a bald export promotion as a goal for an agency is no longer appropriate.

Just a couple of points on the mechanics of how to achieve this. We have wrestled with the question of who should actually be doing the down-and-dirty environmental impact assessment work with the World Bank and with the other multilateral development banks, those who fund operations in other countries where there are other competent bodies who are supposed to be looking at the environmental impacts for their own purposes. And it has become quite normal amongst those institutions to use—depend on the work that is done by the competent authorities in the relevant countries, and only fill in the interstices around the edges.

So it is my view—I may not have the agreement of other organizations, but I will at least put it out as one possibility—that the Ex-Im Bank can have rules which make clear the minimum requirements for environmental impact assessment.

I have outlined some of those in a written piece of paper which I will give you, Mr. Chairman. But, essentially, they have to deal with looking at alternatives and taking public comments into account.

If those requirements are fully satisfied by the competent authority in the relevant country, then the Ex-Im Bank's job may be only to assure that those requirements have been fulfilled. At that point, that job has been done and there is no conflict between that agency's work and the government authority's in the relevant country. But if they haven't been done; or if they have been done really badly; or if there are enormous public protests to show that they have been inadequately carried out, or the procedures are quite clearly inadequate themselves; or if it is known that the actual implementation of the studies was not fulfilled in a competent manner and the papers should reflect that and public comments can show that, then you have a job to do to fill in the spaces. But I would think that would be in very much the minority of cases, and the extent of the work can be tailored to the importance of the impacts of the project.

There is a concept in environmental impact assessment of significant environmental import. It requires a reasonable standard. You take a look at the project. Someone who knows something about the issues makes a judgment about how really serious this is likely to be, and you tailor the detail, the depth, the extent of the work to the reality of the thing you are dealing with. And that has been worked out over decades amongst millions of experts all over the world; and I don't think it is beyond the capability of the officials of the Ex-Im Bank to clearly make categories for which kinds of projects will have which kinds of review.

The last point I will make is that there are cases—and I think Mr. Brody alluded to this—where no matter what the procedures are and no matter how well they were fulfilled, that the projects are so damaging to the environment or perhaps to other aspects, like certain social issues having to do with human rights, or that the consequences of a mistake are so irrevocable, that the United

States should simply make a judgment that we do not wish to be involved in those projects.

We don't have to intervene and stop the government from doing them in whatever country we are talking about, but it is not in our interests to help them along; we don't want to use our money to finance them. There will be very few of those cases.

It is arguable—and I am going to suggest that it should be looked at—that the Temelin case is one that should have been looked at in that light, should be on the list of the kinds of projects that should be studied for that particular aspect.

But with those kinds of exceptions where the Export-Import Bank should be making its own judgment that our money should not be used, aside from those kinds of cases, I am sure that the procedures that were on track for developing in cooperation with Mr. Brody and the Ex-Im Bank, once they are in place and once they are being implemented, will make this agency a very different place.

Thank you very much.

[The prepared statement of Ms. Bramble can be found in the appendix.]

Chairman FRANK. Thank you, Ms. Bramble. I will be asking Mr. Brody afterwards to comment on that.

I did want to mention one more thing. The hearing notice also mentioned we would be specifically covering H.R. 2096, sponsored by my colleague, Mr. Kennedy, which would amend the act to promote specifically the export of pro-environmental goods and services. We will be having a separate hearing on that; so that won't be up today; as Mr. Brody knows, I have a particular interest in one special example of that. We will be pursuing that a little later on.

Next we will hear from—and I should have added that Ms. Bramble is here in her capacity, I believe, as Director of International Programs, National Wildlife Federation.

Mr. Manheim, we will listen to you now.

STATEMENT OF BRUCE S. MANHEIM, JR., ATTORNEY

Mr. MANHEIM. Thank you, Mr. Chairman. It is quite refreshing to, as Barbara just mentioned, hear the chairman of the Ex-Im Bank indicate that they do in fact have a new charter. One of the questions this subcommittee may wish to address is whether that charter should, in fact, be codified in new legislation as opposed to regulations issued by the Bank, because, unfortunately, an enlightened individual like Mr. Brody may not be in office forever.

As far as that new charter goes, I think we would like to congratulate Mr. Brody and the Bank generally for denying funding or deciding not to participate in the Mount Apo geothermal project. I think that reflects a sincere attempt to address problems of the past which, like Barbara, I will not dwell on here.

As far as the 1992 statute goes, the Export Enhancement Act, in my view, Mr. Chairman, falls short of what Mr. Brody, in fact, seeks to do; and it certainly falls short of what other agencies under U.S. law are currently required to do.

Specifically, that legislation only requires the Bank to consider the environmental impacts of projects seeking financial assistance

where those projects do not involve a country participating in the action. That is an incredibly narrow mandate. That fact I think, at least in part, explains why between 1979 and October 1991 only 20 environmental assessments were done for some 3,600 transactions reviewed by the Bank. It also contrasts sharply with the Foreign Assistance Act and with legislation that currently governs OPIC, where they, unlike Ex-Im Bank, have a substantive standard that they must meet, as well as more comprehensive procedural guidelines that they must meet before insuring projects.

Moreover, it contrasts with the mandate that the Agency for International Development is under with respect to compliance with the National Environmental Policy Act. That mandate originates from a lawsuit that the Environmental Defense Fund filed in 1976 and where AID ultimately agreed to promulgate regulations implementing NEPA for its overseas activities. While NEPA is something that virtually every administration is hostile to applying overseas, I feel that it is sufficiently flexible that, at least as a starting point, the Bank may wish to consider pursuing environmental assessment under the umbrella of that statute.

Moreover, as far as substantive standards go, the legislation adopted in 1992 essentially is discretionary. It only provides authority to the Bank to deny funding where a particular project is particularly egregious. That again contrasts with the substantive standard that OPIC has.

A second point I would like to make, Mr. Chairman, involves the export of environmental technology. Putting aside the Kennedy bill, which you will consider at a subsequent hearing, I think it is clear that the Bank's mission of exporting environmental technology can be enhanced by the Bank itself beefing up both its procedural guidelines and its environmental assessment procedures, as well as adopting substantive standards that guide its own lending as well as the lending of other export credit agencies.

The key question will be what happens in the interim. I think everyone at this table supports the notion of Ex-Im Bank applying or seeking international standards both substantively and procedurally in the context of the OECD. That may take a number of years, however, to reach; and a key question will be what happens in the interim as far as lending on projects.

I will stop there and get into more detail with questions.

Thank you.

[The prepared statement of Mr. Manheim can be found in the appendix.]

Chairman FRANK. Thank you, Mr. Manheim. As I should have said, any written statements any of the witnesses have, or any supplementary material, will, of course, go into the record.

Finally, we will hear from Mr. James Barnes, who is director of International Development of Friends of the Earth. And then we will have time for questions. I note that we have been joined by several of our colleagues. Mr. Barnes, please go ahead.

STATEMENT OF JAMES N. BARNES, DIRECTOR, INTERNATIONAL DEPARTMENT, FRIENDS OF THE EARTH

Mr. BARNES. Thank you. I have six major points to make, Mr. Chairman, three about the Export-Import Bank in general, and three about the Temelin nuclear reactor.

I associate myself strongly with the remarks of my colleagues, Ms. Bramble and Mr. Manheim, but I would like to just go a little bit further in what I hope is a positive vein. It seems to us that the Export-Import Bank could be and should be playing an important role in promoting the best U.S. technology and services available, with an emphasis on investments that protect the environment and promote sustainable development. And like Mr. Manheim, we think that some of these policy directions should be codified and then left to the agency to work out the details.

We think that the agency should adopt proactive policies on major global environmental problems, such as climate change, ozone depletion, and biodiversity, to name three. And we think that a lot of jobs would flow from that kind of policy objective.

There are lots and lots of jobs associated with industries—for example, with ozone depletion, where the United States is absolutely in the lead in the world; and we are not promoting those industries and not promoting those jobs. So we see a large positive potential there.

In terms of the environmental assessments question, a little twist on this the subcommittee might want to look at is that, for example, last year there were two cases where the United States executive director to the World Bank was actually voting against a project, the Yacyveta Dam in Argentina in one case, and abstaining and lobbying against another project, the Hopewell coal-fired thermal powerplant in the Philippines, at the same time as Ex-Im was approving projects. I suggest that it is a bad idea for us to be taking what is always a tough road in the World Bank to try to persuade colleagues to oppose a project at the same time that we are funding components of that same project.

Third, given the existence of the competing export agencies—and we have had good discussions with Mr. Brody's staff about this in recent weeks—it is obvious that a concerted diplomatic effort is required to move those institutions along a similar path, because otherwise we are shooting ourselves in the foot. We are putting our own agency at a competitive disadvantage. I don't think any of us want to see that happen.

Several of us have been discussing this with the administration and have been urging that, in fact, they use the G–7 Economic Summit this year as the opportunity to launch a multilayered initiative to "green," if you will, all of those export agencies so that they are not working to our disadvantage as we try to put our agency in what I can call a leadership position. It is important for it to be in a leadership position.

It is important to demonstrate, in fact, as a catalyst that these things can be done and should be done, but again if we don't have this concerted diplomatic effort with the G–7 and the OECD countries, we won't really accomplish our overall objectives here.

If you look at the amount of capital, for example, that all the export agencies have at their disposal, it is a large, large number.

And, as Barbara Bramble mentioned, we need to be putting all the resources we can toward achieving progress on Agenda 21 of the Earth Summit declaration.

Now, turning to the Temelin case, Mr. Chairman, in our view, the Bank's proposal to provide a $317 million guarantee for the Westinghouse contract is a badly flawed decision, and although we take cognizance of what the chairman has noted—that there is no more legislative veto—we do feel that Congress should, after reviewing these facts very carefully, take the steps that are in Congress' power to reject the project and help the administration decide to do that.

I am not going to repeat all the details that are in the testimony, but I do just want to say a few specific things about this.

It is, in our view, a dangerous hybrid combination of technology that has never been tried before. It contains many serious design flaws that appear not to be corrected by Westinghouse's proposed modifications to the safety system. I know that the chairman is aware that there is a special governmental delegation from Austria led by Professor Manfred Heindler here, and they prepared a detailed technical memorandum regarding this plant, which we distributed copies of yesterday for the subcommittee—this document here, dated February 1994, and the associated aide memoire. In our view, this rebuts many of the assumptions on which the Ex-Im Bank and the National Security Council relied.

I would direct the subcommittee's attention in particular to the section detailing the Halliburton NUS Study. We urge every Member of Congress to read this technical memorandum. We also believe that they will find that this verifies the independent analysis made by Friends of the Earth/Czech Republic and other groups.

I have colleagues sitting behind me from Friends of the Earth/Czech Republic today if the chairman cares to ask them any particular questions.

In short, for a financing package of this magnitude involving something as sensitive as a nuclear powerplant, and with the strong concerns being advanced by citizens in several countries, there can be no doubt that Ex-Im should require a thorough, integrated impact assessment that includes a full analysis of alternatives; and this has not been done.

Temelin continues, Mr. Chairman, to be strongly opposed in the very area where the plant would be and is being constructed. According to the latest information I have, 58 of 65 towns and villages in the area, many filled with Temelin workers, have asked the government not to build the plant and have demanded that the government prepare an environmental impact statement with public participation, as Czech law requires.

In the Czech Republic, there have been no public participation activities in the decisionmaking process. There has been no public hearing. And as I said, there is no public EIA process that has been followed. According to the technical memorandum that I referred to, prepared by the Austrian team, there is a serious lack of normal open procedures for technical and public review of this project.

In our view, this case presents an interesting and difficult, and we think ultimately justifiable, case where we have an obligation,

really, not to use U.S. taxpayer facilities, guarantees, whatever they are, to build this project.

We have a fledgling democracy in place in the Czech Republic. It is in the transition phase, that is clear. Many democratic procedures have not been set up or implemented. The old energy bureaucracy remains largely intact. This project was inherited by the new government which has candidly stated it would not have initiated the project had it been up to it.

We also think that—this is my third point in this section—that Temelin should be evaluated in the broader context of the scores of aging Soviet-designed nuclear reactors scattered around Eastern Europe and the States of the former Soviet Union. One of the other documents that I attached to the testimony is this report called "Russian Roulette: Nuclear Power Reactors in Eastern Europe and the Former Soviet Union." I wrote this report last year for the G–7 Economic Summit, Mr. Chairman, and it has details about all of the reactors in the whole region, which is important so that we see the pattern here.

In our view, the policy of the government should be not to provide—that is, our government—any assistance for expansion of nuclear power in this region; and instead, we should be focusing on how to get rid of these aging and dangerous reactors. There are many, many alternatives which are well documented, not just in my report but in other reports by the World Bank, the EBRD, and other institutions. There are many options available.

That concludes my formal statement, Mr. Chairman. I will be glad to take any questions.

Thank you.

[The prepared statement of Mr. Barnes can be found in the appendix.]

Chairman FRANK. Thank you, Mr. Barnes. Let me say, we want to put all that we need of these documents in the record. Things that were specifically Temelin we can put in. I might ask people who have lengthy stuff if they would work with the staff, so we might be able to do some appropriate excerpting and don't overprint. But we certainly want to get the substance of it all.

I will begin my questions.

Mr. Brody, first of all, I want to congratulate you on the obvious success you are having and congratulate the environmental organizations simply on the success you appear to be having in getting some principles agreed to. Mr. Barnes is pointing out that we don't want to be at a competitive disadvantage; you are acknowledging that we have a record that must be substantially improved environmentally; that represents the kind of common ground that I think is hopeful for the future.

But I was impressed by Ms. Bramble's suggestions and Mr. Manheim's as well, that we really need to codify this beyond where it was. That, certainly, seems feasible to me, and I would think, working together, we could come up with language that would codify these principles without overly rigidifying them. But I would be interested in your response to this suggestion that codification of some basic principles beyond where we are now would be useful.

Mr. BRODY. I have not given a lot of thought to the issue of codification, generally preferring to defer to Congress on issues that it chooses to legislate.

Chairman FRANK. OK. We will write it, if you want us to.

Mr. BRODY. Given there are a lot of ramifications to codification, I would be glad to think about it and give you a response.

Chairman FRANK. I appreciate it. What I am going to ask, I will ask Dr. Key and Dr. Brown and others to begin working with whomever you want to designate and people from the group, because I am persuaded that is something we ought to move on. And the best thing, I think, is to start exchanging drafts, put it on paper; and I would hope, before the end of this legislative session, we could do something.

Yes, Mr. Brody.

Mr. BRODY. I didn't mean to imply by my answer that I think that we should.

Chairman FRANK. Right, I understand that. We are always open. There are two things: One, we are always open to the possibility that maybe this was not a good idea on second thought. That seems to be unlikely. It's also possible that we might decide that this is something that we can't write. I hope we can and I want to try. You know, we will be open to it.

You make a good point, and I congratulate you on the extent to which you have obviously conveyed to people your willingness to do this in a serious way. But, we are talking about the future, and we are talking about not being in the kinds of situations you—we have gotten ourselves in. So I think there is a strong case for codification which I want to go forward.

Mr. Barnes, I was fascinated by the example of our executive director at the World Bank voting or abstaining in each case, voting against and abstaining on projects that Ex-Im was financing. Was the ED voting no in pursuance of some statutory mandate? Have we got sort of contradictory mandates or was it an administrative decision? What were those situations?

And was the ED saying, no, on economic grounds or environmental grounds in those two cases? Those fascinate me.

Mr. BARNES. Well, in both those cases, as there is in any case where there is a serious question about what the U.S. position should be at the World Bank or one of the multilateral regional banks, there is an interagency process. My understanding is that Ex-Im isn't part of that interagency process, at least not formally speaking. Normally, it involves the State Department and AID, EPA and Treasury; those are normally the players that meet to discuss these things.

In any event, pursuant to the detailed legislation that Congress has passed over the last 8 or 9 years on multilateral banks and to the guidelines which the Treasury Department has developed—I think there are five sets of guidelines on energy, on a number of different issues—forests and so forth—the Treasury Department, in consultation with the working group and, obviously, with a lot of consultation with NGOs, comes to a decision as to how it will vote on these World Bank projects. In each of those cases, the decision was taken on a mixture of economic and environmental grounds not to support the proposed project.

Chairman FRANK. Well, encountering, as we did last year, the skepticism about the United States as we tried to take some environmental initiatives at the World Bank, that sounds to me like a self-inflicted wound that is avoidable. So, Mr. Brody, I would urge you to apply for membership in that interagency group at the very least, and probably OPIC as well. I would be glad, if we need to, to support that.

I mean, leaving aside the merits, what this does to our ability to be environmental advocates, if we are telling other people to vote against something we are funding, that is just awful. I hope we will be able to take the appropriate administrative steps to avoid that.

Mr. Manheim.

Mr. MANHEIM. Thank you, Mr. Chairman. I just wanted to add, on that case, the Pagbilao coal-fired plant in the Philippines is a perfect example of the need for the Bank's procedures to be substantially revised. The very reason the Bank didn't look at that project is because it produces sulfur dioxide. And their 1979 procedures have a categorical exclusion for any projects that produce SO_2. As I understand it, that is the very reason that at least our executive director of the World Bank or some of these other institutions denied funding for it.

Mr. BARNES. It is not the only reason; there is also the community. The communities there are strongly opposed to the project.

Chairman FRANK. In the recipient country?

Mr. MANHEIM. The very reason Ex-Im Bank missed it is because——

Chairman FRANK. There is a statutory exclusion that anything that produces——

Mr. MANHEIM. Sulfur dioxide, as well as there is something like seven or eight, maybe nine——

Chairman FRANK. I would like to get the legislative history of that provision.

Mr. MANHEIM. Well, it is not the legislative history, it is in the Executive Order that was adopted in 1979 and that is now codified in Ex-Im Bank's current procedures.

Chairman FRANK. All right. Well, not statutory. Go ahead, Mr. Brody. I notice several of my colleagues have some interest, so we will listen to you and turn to Mr. McCandless.

Mr. BRODY. Mr. Chairman, as you might well expect, we have already established completely different lines of communication with the World Bank and executive directors, so we have a process in house to find out what they do and can take into account what the thinking is there.

Chairman FRANK. That is reassuring. We will, as I said, be glad to. Although we don't have jurisdiction, it would seem to me OPIC ought to also be involved because they have a similar role.

Mr. McCandless.

Mr. MCCANDLESS. Thank you, Mr. Chairman.

Mr. Brody, I have a copy of a letter that you wrote the Speaker of the House on January 27, 1994, obviously, in response to the areas of safety, environment, and considerations through which ultimately the loan was approved to Temelin. I am using Temelin as an example of the subject matter that we are discussing here today and what most of us consider to be the responsibility of a public

agency when funds are agreed to for purposes of constructing some public project in another country.

In your letter, you talked about the review of the project and particularly the safety aspect of it and you said Ex-Im Bank's engineering division conducted a thorough review and concluded that the project—I am paraphrasing it here—concluded that the project participants in the Czech government are exercising due diligence. This runs somewhat contrary to other testimony and information that we have.

To what degree would the engineering division of Ex-Im Bank in this particular case, on this subject, have the expertise necessary to be able to come up with this conclusion?

Mr. BRODY. Ex-Im Bank has looked at nuclear facilities in the past. Ex-Im Bank's lead nuclear engineer, Mr. Jennings, has over two decades of experience in looking at nuclear facilities. He is an engineer and he has a nuclear license. So, I think it is pretty clear that from Ex-Im's standpoint he has the expertise required to lead the kind of effort which he did.

In addition to that, after my confirmation in May, one of the first acts that I took as chairman was to seek technical guidance to augment what we have at Ex-Im from the U.S. government as a whole. Following through on this request, the National Security Council led an interagency review and sent us a memorandum laying out the results of their review.

We have also opened ourselves completely to listening and then following up on virtually every issue raised by interested groups. And there were a number. This process, which, under the past administration, looked as though the work had mostly been completed by last summer, took us through January to complete.

In addition to that, we met with the chairman of the Nuclear Regulatory Commission to discuss this project specifically, and then, of course, the Engineering Division consulted with many, including the International Atomic Energy Agency and many, many others who have the knowledge and expertise on this subject. So, the expertise that we have at Ex-Im Bank has been augmented by the assistance of others.

Mr. MCCANDLESS. The project—again I am using this as an example of the process—the project has been characterized by some as a model A frame with model A suspension in a V–8 world with turbochargers; the only thing that it has going for it is the fact that Westinghouse is installing a new set of brakes. So the idea here is we have got an old car, out of date, with a good set of brakes; therefore, the car can stop. How would you respond to that kind of characterization?

Mr. BRODY. Well, I really haven't thought of comparing the nuclear facility to a model A.

Mr. MCCANDLESS. You can characterize it any way you would like to. I am talking about old technology being brought up to date by certain devices of control. And so brakes control an old car to a large degree, so that is my characterization.

Mr. BRODY. Well, I will talk about, then, old technology that I know something about, so I can be on sound ground.

For a period of time, upon graduation from college, I worked with the Chesapeake and Potomac Telephone Co., here in Washington,

DC. One of the marvels that the telephone system had to bring to bear was the ability to use very, very old technology in a system that had very, very new technology. In technical terms, you saw crossbar offices with electronic switching offices getting along quite fine.

I think that is at least one rather straightforward, simple example out of my own experience, to indicate that old and new are not necessarily a misfit.

Mr. MCCANDLESS. Thank you. I have one more question, Mr. Chairman, with your permission.

Mr. Barnes, you spent a great deal of your prepared testimony discussing the Temelin plant, again using it as an example of the subject for which we have convened this subcommittee hearing. On page 7, one could interpret this one way, and I would like you to give me an expansion relative to your interpretation.

The last paragraph says, in essence, "U.S. support for the completion of reactors in this region," comma, "or indeed anywhere in the world," comma, "opens up very serious questions of liability should a plant explode."

Does this mean that if we were to, through one of our national public resources, approve the funding or, in some way, participate in a properly designed facility—that is, properly engineered and constructed with competent management and properly trained people, that that is something that you would also oppose?

Mr. BARNES. Well, I would say, in general, Friends of the Earth, which has 52 affiliates all over the world—North, South, East and West—is opposed to the use of nuclear power, no matter how it is characterized, whatever qualities it has.

But the point I was getting at here is that if we take the experience with the Chernobyl disaster, where we had liability really of a magnitude we have never come to grips with——

Mr. MCCANDLESS. You compared it to the savings and loan bailout.

Mr. BARNES. Yes, it is many, many scores, maybe hundreds of billions of dollars.

But more than the dollars, we had people's lives affected, we had croplands affected, we had many things affected. I think they had to slaughter two-thirds of the reindeer in the Nordic countries, for example, because their diet was adversely affected by the radioactive fallout. It had all kinds of repercussions on the cultural and economic aspects of those indigenous peoples.

So my point is this. The concept of liability needs to be very broad if we are going to be honest with ourselves about the risks that we are facing when there is a serious accident at a plant like this.

And the point of view of our "Russian Roulette" report—again, if I could just add this comment—is that we think that there are several dozen of these dangerous reactors in this particular region and that the priority of our government and the G–7 should be to close them down as soon as possible. Our views are shared by many people in the International Atomic Energy Agency establishment and working for many of the governments, but so far it hasn't risen to the level where the governments, as a group or individually, have taken that on seriously.

In our opinion, it is foolish to be investing in more of these model As, model As with good brake systems as you characterized it, you know, when we are faced with literally dozen of these reactors already operating without proper safety equipment. Our priorities are just misplaced in that regard.

Mr. MCCANDLESS. I appreciate your expansion. I guess I am somewhat opinionated here when there is something like back in 1977, when I was involved in the development of a plant in the area that I represented as an elected official, we did quite a bit of research on this and there were at that time—in the 1970's, there were 256 operating nuclear powerplants in the world, of which—nobody had any idea there were that number—of which 11 were in or near the greater Chicago area. And we don't hear much about those.

Mr. BARNES. That is true.

Mr. MCCANDLESS. So when we talk in terms of nuclear energy, I am reminded of these things; and that is why I asked the question I did. Thank you.

Thank you, Mr. Chairman.

Chairman FRANK. Thank you, Mr. McCandless. We have copies of these memoranda; we will be putting them in the record in appropriate form.

[The material referred to can be found in the appendix.]

Mr. Fingerhut.

Mr. FINGERHUT. Thank you, Mr. Chairman. Let me begin by saying that the broader subject matter of this hearing is relatively new to me and I appreciate the education I am getting on how we go about——

Chairman FRANK. It is new to the Export-Import Bank, too.

Mr. FINGERHUT. Well, then you are saying, I am not so far behind the curve; is that it? And so my specific interest is on Temelin, but I am cognizant of the fact that we are really talking about a broader set of questions of how we approach this issue in the future. But I do have a couple of questions I want to clarify about it.

As you know, Mr. Brody, I wrote you a number of months ago, and you were kind enough to respond on this issue before the decision was made. Let me start in a different order than I expected, because Mr. McCandless just raised the issue of liability, which was down my list, but we might as well stay on his point.

I was—perhaps I am simply rephrasing the same question, but what I was concerned about is what precisely is the liability of the Ex-Im Bank, or this country, or Westinghouse, or any of the participants in this project if there should be an accident; if this project were to go forward and were to be completed and if the expectations of some of the experts who are saying that this isn't scientifically sound were to prove correct? What is your understanding of the liability situation?

Mr. BRODY. Well, I don't know that I want to speak for everybody else, but I would like to speak for the United States' potential liability. And very clearly, I personally would not have nor would I vote for this if there was any appreciable chance of any significant liability to the United States arising out of Temelin.

Mr. FINGERHUT. And on what basis are you confident that there is no, I think—what did you say, "appreciable risk of significant liability"?

By the way, there are probably those who would wish for a lower bar on that, like "no liability," not just "no significant liability."

Chairman FRANK. One-adjective restriction rather than a two-adjective.

Mr. BRODY. The basis for the conclusion is a very thorough review directed by the General Counsel of Ex-Im.

Mr. FINGERHUT. Is that a document that we can review?

Mr. BRODY. I received my review orally. I do not know the extent of the actual documents.

Chairman FRANK. Let me say, I would want to support Mr. Fingerhut's request. It seems to me entirely reasonable for a member of the subcommittee to be able to read that. We don't have to make it part of the record. You don't want to invite potential litigants by giving them a map to use against you, but I do think it is very reasonable for a member of the subcommittee to be given a chance to look at it and discuss it with whoever prepared the position.

Mr. FINGERHUT. Thank you, Mr. Chairman.

And so I would——

Mr. BRODY. One other comment. The reason I didn't mention this to start out with is, I don't want to get into technical considerations, and I would rather leave things with our conclusions.

But one of the keys to the liability issue is the fact that the Czech Government has concluded that it is joining the Vienna Convention.

Mr. FINGERHUT. Well, I appreciate that. But I think I would, as the chairman said, like to see what the full range of considerations were.

Is it your understanding then—and I recognize you may not be the ultimate expert, because you are protecting the interests of the Ex-Im Bank and the United States—but is it your understanding, then, that the partners to this project think Westinghouse is where they would go to seek redress if there were an accident, or do they think it is the Czech Republic, or who do they think is the party liable if there were to be an accident?

You made clear to them, I am sure, it is not the Ex-Im Bank.

Mr. BRODY. Once again, I don't want to try to opine to you in legal matters. I am not a lawyer. The major focus is the protection of the United States.

Mr. FINGERHUT. I try and pretend I am not.

Mr. BRODY. But my general understanding is that the Czech Republic steps up for liability issues when it joins the Vienna Convention.

Mr. FINGERHUT. On any of these questions, anyone who wishes to jump in, please do. Mr. Barnes.

Mr. BARNES. Well, I just wanted to say that it is my understanding that, assuming that the Czech government goes ahead with the ratification process which they announced a few days ago for the Vienna Convention, that it still only governs liability for transboundary damage between contracting parties. So I think there still are some valid questions that need to be looked into about if

there were an accident at this plant, would Czech citizens themselves have rights of any sort.

I am not saying I know that they do, but I think there are a lot of open questions there about who has what liability. And in the aftermath of the Chernobyl accident, lots of people were discussing that very seriously.

But just because you sign the Vienna Convention, that is not the last word on the subject.

Mr. FINGERHUT. The—I guess that leads to the question of what exactly is happening in the Czech Republic on this project.

You said, Mr. Brody, I think, that you had listened to every interested group on this project—and I am sure you have, and that doesn't imply you agreed with every interested group; it simply means you listened. What is your impression, because we on this subcommittee have been getting lots of information about what the views are within the Czech Republic, both from citizens' groups and from government officials, such as the Prime Minister, what is your impression of what you are hearing from the people, the elected officials of the Czech Republic on this project?

Mr. BRODY. Let me try to be more specific in my statement that I listened to every interested group.

We, Ex-Im Bank, listened to every interested group who came forward to talk to us. And we welcomed these groups. Much of the conversation over the period of time since the Board sent this case up to Congress has been conducted by those who did not come before us. So you should understand that.

It is my understanding that the Czech Republic is going forward. The vote in their Parliament to join the Vienna Convention was a unanimous vote.

The Czech Republic is a democracy—as such, has, in my understanding, quite a free press. There has been a good bit about Temelin, over time, in the press. But, I think the simple answer is that the Czech Republic is going forward as we understand.

Mr. FINGERHUT. One of the materials provided by Mr. Barnes' organization, Friends of the Earth, quotes a letter to you from the Czech Prime Minister in which—again, this is taking the quote from their documents, I don't have the letter, and that is why I ask the question—in which he says—they quote him as saying, the question of the Temelin facility was not evaluated and discussed in my country in a way which would enable any responsible person anywhere in the world to support its completion.

Is that an accurate quote from the letter to you? And if so, what was your response to that?

Mr. BRODY. I think it is pretty hard to ask me if it is an accurate quote in the letter when I don't have the letter.

Chairman FRANK. But I will ask you then, since it was referred to, if you would make it available, we would put it in the record.

Mr. BRODY. Sure. The letter that was received——

Mr. FINGERHUT. I am not trying to put you on the spot; I am just trying to see what information——

Mr. BRODY. No, I just don't have it in front of me. The letter that was received was received just in the past few days.

Mr. FINGERHUT. I see; after the decision was made, after the Ex-Im Bank decision was made?

Mr. BRODY. After Ex-Im decided to pass the case on to Congress, yes.

Mr. FINGERHUT. OK. So we can—so we can evaluate that, but that wasn't something you had in making your decision?

Mr. BRODY. That is correct.

Mr. FINGERHUT. If I could, Mr. Chairman, just very briefly, one or two other questions.

On the question of disposal of the waste, we obviously, have had a nuclear industry in this country for a number of years, and we still haven't quite figured this question out yet. It seems that there is a great deal of concern surrounding this project, that the method of disposing of waste that the Soviet Union had engaged in, however one might characterize the environmental safety of that process, is not available to the Temelin reactor.

Was this a consideration, and how did you deal with that, with the question of the waste disposal?

Mr. BRODY. As I think you correctly pointed out, disposal of waste continues to be an issue all over the world. It is no surprise that it is an issue here. We have been advised that there are a number of different satisfactory ways to deal with this problem. Therefore, we looked into it and received expert advice. We are comfortable with the advice that we were given.

Mr. FINGERHUT. We do in this country, as you know, on projects, environmental impact statements and extensive documentation of what those impacts might be. Is that something that was done in connection with this project? And if so, was there a report that you were able to review, that we are able to review?

Mr. BRODY. We did not do an environmental impact assessment, and we were not required to do one.

I would like to emphasize that we did obtain the key information about the safety of the Temelin project that would have been provided by an environmental impact assessment. I have also talked a bit about our licensed nuclear engineer on staff and some of the processes that we went through and some of the consulting that we did while reviewing the transaction. We also reached the conclusion that the actions to which the Czech authorities have committed themselves will allow the Temelin facility to obtain a level of safety that would be comparable to the level required of a nuclear powerplant in the United States.

Mr. FINGERHUT. Have—though it doesn't qualify as an official environmental impact statement, has that information been made available to this subcommittee for its review?

Mr. BRODY. What we have done——

Mr. FINGERHUT. The information on which you relied, that was comparable?

Mr. BRODY. What we have done, which I think is a first in Ex-Im's history, is to provide Congress with the engineer's report, which was attached to the letter that Congressman McCandless referred to earlier.

Mr. FINGERHUT. I thank you, Mr. Chairman. I know I have gone way over my time.

Chairman FRANK. Thank you.

Let me just ask—we will get to Mr. Huffington in a second—but the questions that Mr. Fingerhut asked about your having to deal

with the question of waste disposal and environmental impact assessment, I understand that under the procedures you inherited that procedure was not required.

One of the logical questions is—it occurred to Dr. Key, to myself, and I am sure to many others—what about under your new procedures; will you be treating Temelin differently under the new procedures you are talking about?

Mr. BRODY. Well, it is hard to judge what the new procedures will be, since we are just in the process of developing them. But, what I would say is that the amount of effort and consulting that Ex-Iim has put into Temelin is at a level unheard of before in the Bank's history. Not that that is any particular mark. But, I think as a case of first impression, it gives us a lot of good guidelines to go by.

Chairman FRANK. I am impinging on Mr. Huffington's time; he is very patient.

I am interested in that subject. But that is something I ask you to keep in mind. The kind of questions people are asking here is what would the procedures be for the future; the kinds of things Mr. Fingerhut is talking about.

Mr. Huffington.

Mr. HUFFINGTON. Thank you, Mr. Chairman.

Chairman Brody, could you answer a couple of questions for me? How much is this total project valued at?

Mr. BRODY. The total project value is difficult to get at, because it was started so long ago. Construction of Temelin began in the 1980's and has been added on. Our portion of the guarantee is slightly over $300 million.

Mr. HUFFINGTON. Do we have an order of magnitude for the entire project?

Mr. BRODY. I do not have an order of magnitude now because I have not seen any reason in particular to get it. I would be glad to see if we can come up with some sort of guesstimates for you after consulting with Czech utility company.

Mr. HUFFINGTON. I am all in favor of Ex-Im helping our American businesses sell their goods overseas. How much of the $317 million is going for U.S. goods? Is that all going for U.S. goods?

Mr. BRODY. Our policies are to finance 85 percent of the export. So $317 million is 85 percent of the export sale, all of which is a U.S. export.

Mr. HUFFINGTON. And how much of that is Westinghouse?

Mr. BRODY. Well, I don't know to what extent Westinghouse has any subcontracting in here, but this is a Westinghouse order completely.

Mr. HUFFINGTON. OK. Let me ask you, on a scale of 1 to 100 on technology, if 100 is the best technology available today for nuclear powerplants, where does this project fall, since you have the experts in house that can tell us?

Mr. BRODY. Let me try to answer that in a slightly different way.

At our Board meeting, I asked our engineer on a scale of zero to 10 how comfortable he was with the review that concluded that the technology produced a safety level comparable to U.S. standards. And his answer, if I remember it correctly, was something of a qualified 10.

Mr. HUFFINGTON. So he would unequivocally say and recommend that we would build a facility like this near Boston or Los Angeles or Washington or New York; he would have no problem recommending that we build that type of facility in America. Would you have no problem?

Mr. BRODY. Well, I haven't considered the question.

Mr. HUFFINGTON. It is one I would like you to consider, because the fact is we have people next door to these plants; we do want to make sure they are safe, no matter where they are built.

Mr. BRODY. I understand that. That is why I asked the question and why the whole amount of our work was going toward determining safety.

The Czech Republic is a democracy. I think that it is making decisions that are its decisions. Its decisions might be different from the decisions that the United States might make here, but I think that is different from our doing the work necessary to be comfortable that the safety level is at a level comparable to U.S. safety standards.

Mr. HUFFINGTON. I would respectfully disagree with that. I think, with American taxpayer funds, that when we are providing dollars to build nuclear power facilities, they should be of the best design, not necessarily—if, in fact, it is a model A—a model A. I would hope that the Export-Import Bank, given the new interest in this project, would reexamine its intent to lend funds for this plant.

And I have a list of questions, Mr. Chairman, I would like to ask unanimous consent to submit to the Chairman of the Export-Import Bank.

Chairman FRANK. Is there objection?

The Chair hears none, so the gentleman may submit them.

Mr. HUFFINGTON. Thank you, Mr. Chairman.

[The questions referred to, and Mr. Brody's responses, can be found in the appendix.]

Chairman FRANK. You had some people who would like to respond.

Mr. BRODY. I would like to respond to your last point.

As I have made clear to groups who have come before us since the date of our Board meeting, which passed this case on to Congress, if there are new facts that have not come to us before, we will clearly look at those new facts. And if those new facts would cause a change in decision, I am, for one, as one of five Board members, very clear that if new facts in the case indicate that new decisions should be made, that would be the case.

Having said that, given the thoroughness of the process that was undertaken, I would be very surprised and very disappointed in the process if new facts came to us which indicated that a different decision should be made.

Mr. HUFFINGTON. Thank you very much. We open this—yes, Mr. Barnes.

Mr. FINGERHUT. Would the gentleman yield on that one point just for a second?

In answer to one of my questions about the letter from the Prime Minister of the Czech Republic, and in light of your heavy reliance on the nature of the democracy in the Czech Republic for your con-

fidence in this decision, would you consider that letter that you received in the last few days a new fact that might lead you to begin the process of reconsideration, the fact that the elected Prime Minister of the Czech Republic says we didn't have a substantial enough debate on this discussion, on this issue?

Mr. BRODY. That letter in and of itself is, in my view, not enough to hit at the technical review that was done and at the operation of the Czech Republic government.

Mr. HUFFINGTON. Mr. Chairman, Mr. Brody, let me ask you this, though.

You just said they were a democracy. Here is an elected official saying it is a problem. I would think that is a good enough reason to start an examination again.

Mr. BRODY. As I said, we looked at all the facts and as I was saying this is not an elected official. This is a former elected official at a time when the Czech Republic was one of two states of Czechoslovakia, as I understand it. I found the information contained in the letter not compelling enough to change my view.

Chairman FRANK. Can I get his status clarified? He was the Prime Minister of the Czech Republic when it was part of what was then Czechoslovakia, but he does not currently hold public office in the Czech Republic?

Mr. BRODY. That I believe is correct, sir.

Mr. BARNES. From 1990 to 1992 he was the Prime Minister.

Chairman FRANK. Nineteen hundred and ninety-two, so if he left office in 1992, if they have a post-employment restriction, he is no longer subject to it; so he is free to lobby.

Any other questions?

Mr. HUFFINGTON. Mr. Barnes had a point.

Mr. BARNES. I just wanted to respond to a couple of the points that were made. Our best information, which we think is based on official figures and therefore quite accurate, is that the total Temelin cost right now is projected to be $2.3 billion, and that approximately $900 million is required to finish the project; that is, if there are no cost overruns, and that would be a rare case, if there were never cost overruns.

In terms of the new information, new facts, so to speak, again, I just want to point in particular to the technical memorandum which the Austrian governmental advisers have tendered to the administration and to Congress. I think if you put the National Security Council memorandum side-by-side with that document, there are probably a dozen or so questions which just leap out, that require more elucidation and more attention. But in my view, it contradicts and provides additional information about a number of key questions.

So I hope people in Congress and elsewhere will take a hard and close look at that document.

Chairman FRANK. Ms. Bramble, I am told you wanted to say something. Somebody saw your——

Ms. BRAMBLE. I did, but it has been covered. Thank you, Mr. Chairman.

Chairman FRANK. Oh, what rare restraint.

The record will remain open for a period of a couple of weeks if anyone wants to either elaborate on or respond to anything that

was said. And I understand there are some people here who have some petitions they want to present to me as soon as the hearing is adjourned, because these would come to me in my individual capacity. I would be glad to receive them.

The hearing is adjourned, and I appreciate the participation of everybody.

[Whereupon, at 11:19 a.m., the hearing was adjourned.]

APPENDIX

STATEMENT OF
KENNETH D. BRODY
PRESIDENT AND CHAIRMAN
EXPORT-IMPORT BANK OF THE UNITED STATES
BEFORE THE
SUBCOMMITTEE ON INTERNATIONAL DEVELOPMENT, FINANCE, TRADE,
AND MONETARY POLICY
COMMITTEE ON BANKING, HOUSING AND URBAN AFFAIRS
U.S. HOUSE OF REPRESENTATIVES

February 23, 1994

Mr. Chairman, Members of the Subcommittee:

Thank you, Mr. Chairman, for the opportunity to meet with you and the Subcommittee to discuss the environmental activities of the Export-Import Bank of the United States (Ex-Im Bank).

As you are well aware, the Export Enhancement Act of 1992 modified Ex-Im Bank's charter in two respects regarding the environment. First, it provided that Ex-Im Bank should encourage increased exports of environmentally beneficial goods and services. Second, for the first time, it mandated Ex-Im Bank to establish environmental review procedures and specifically authorized the Board of Directors to withhold financing of a project solely on environmental grounds.

Promoting Environmentally Beneficial Exports

Although the primary focus of my comments today will be our efforts to develop responsible environmental procedures, I would like to mention our common interest in increasing Ex-Im Bank support of environmentally beneficial exports. There is no question that increasing the export of these products will help

create high-wage jobs for Americans at the same time that it helps improve the global environment. The size of this market is enormous. Current estimates show the worldwide market for environmental goods and services to be $350-400 billion, and it is predicted to grow to $600 billion by the end of the decade.

The developed world, with its more advanced regulatory requirements, will continue to be a very large and important market for U.S. exporters of environmental goods and services. However, the countries of the developing world, the emerging markets that Ex-Im Bank serves, may present the greatest prospect for long-term growth for the industry.

American companies have the technology and expertise to capture large segments of the world market for environmental goods and services. However, our companies already face strong international competition, particularly from Germany and Japan. The National Export Strategy announced by President Clinton last September reflects the Administration's commitment to helping companies compete in the international market and to increasing U.S. jobs through increased exports of all types of goods and services. Moreover, the unique opportunities presented by the environmental industry led the President to call for a specific strategy to promote environmental technology exports.

The Environmental Technologies Export Strategy developed by the Trade Promotion Coordinating Committee (TPCC) Environmental Trade Working Group was released in December 1993 and identifies key market trends and opportunities for environmental exporters.

It recommends ways to better coordinate and focus U.S. Government export programs and resources and it recommends creating more partnerships between government and the environmental industry.

As you know, Ex-Im Bank's primary mission is to increase American jobs by supporting the sale of U.S. products in situations where ordinary commercial financing is not available or where U.S. exporters face subsidized competition. In Fiscal Year 1993 Ex-Im Bank authorizations were a record $15 billion in U.S. exports. Of that, $400 million was attributed to 19 environmentally beneficial projects such as: five water/sewage treatment facilities in Venezuela, a geothermal power project in the Philippines, and combined cycle power plants in Indonesia and Thailand.

So far in FY 94, we have provided support for more wastewater treatment facilities in Venezuela, biomass power generation at a Russian factory, gas condensate recycling in Uzbekistan, and a wastewater treatment system in the Czech Republic.

While Ex-Im Bank has supported exports of various pollution control equipment over the years, the fact is that, until recently, Ex-Im Bank has given no special attention or effort to exporting environmentally beneficial goods and services. We are changing that. Our approach to increasing these exports is two fold. First, we plan to do more outreach to the environmental industry to make them more aware of Ex-Im Bank services. And second, we are making a special effort to understand the unique needs of this industry. We are committed to being flexible and creative with our

current programs and, where necessary, we may adapt our programs to meet their needs.

During 1993, Ex-Im Bank staff participated in numerous environmental meetings with industry representatives, bankers and environmental groups at trade fairs and conferences around this country and overseas. This year, we have been talking extensively with U.S. companies and Mexican officials, both here and in Mexico, about how we might get more involved in financing environmental infrastructure projects in Mexico.

I am personally involved in these outreach efforts. I have met with environmental exporters in Boston, Seattle, Chicago and Washington. I also have spoken at several major environmental conferences in New York and Washington and will speak to a Trade Development Agency sponsored conference next week about our interest in supporting Mexican environmental infrastructure projects. In a few weeks, I hope to be meeting in China with government officials charged with prioritizing that country's environmental efforts, so that we can provide more support to exporters in that growing market.

We have learned from companies that many, particularly small and medium-sized environmental firms, do not know about Ex-Im Bank's services or how they work. It is also clear that many of these companies cannot afford the time and money needed to investigate far-away market potential, so they never reach the point of seeking our services. We hope that our own outreach efforts, coupled with those outlined in the TPCC Environmental

Technologies Export Strategy, will help bring more environmental projects to Ex-Im Bank for support.

For companies that have immediate prospects for environmental export sales and come to us for financing, we are trying to be especially responsive and flexible in meeting their needs. Clearly the global shift toward democracy and privatization is leading to a shift in the nature of our business. There is a movement away from sovereign borrowing to municipal and state borrowing and structured project financing.

One good example of this can be seen in the financing of Mexican environmental infrastructure projects. Environmental improvements in wastewater treatment and solid and hazardous waste management are high priorities for the Government of Mexico. However, the Mexican government is committed to building these facilities without incurring extensive foreign debt. Instead, they plan to rely, as much as possible, on limited recourse project financing. We are proposing to create a new project finance group within the Ex-Im Bank. The goal is to develop quickly the expertise requisite for supporting limited recourse project financing, including environmental projects. We also are evaluating other means of helping environmental exporters, such as providing the maximum allowable financing terms and allowing certain local cost components to be included in environmental projects. We look forward to reporting to the Subcommittee in the near future about these issues.

Ex-Im Bank Environmental Procedures

As you know, when Ex-Im Bank's charter was reauthorized near the end of 1992, Congress included a new section on environmental policy and procedures. Ex-Im Bank is required to establish procedures to take into account the potential beneficial and adverse environmental effects of the U.S. exports that it is asked to support. In addition, the Ex-Im Bank Board of Directors is now authorized to turn down an export financing application for environmental reasons.

Ex-Im Bank's new leadership welcomes this environmental mandate. In my opinion, Ex-Im Bank's past record with respect to considering the environmental impacts of projects has been inadequate. The Clinton Administration is committed to U.S. leadership on global environmental issues, and we plan to be a part of that effort.

As a first step, our people have been investigating the environmental review processes used by other Federal agencies and multilateral lending institutions. Ex-Im Bank staffers have met with experts from the Environmental Protection Agency (EPA), Overseas Private Investment Corporation (OPIC), International Finance Corporation (IFC) and the World Bank, to discuss the environmental assessment process. Several months ago, the EPA presented a two-day seminar for our engineers on environmental assessments. We are reviewing the environmental procedures of the World Bank, IFC, European Bank for Reconstruction and Development, and OPIC, as well as those of our foreign competitors' export

credit agencies. We also have met with a variety of Ex-Im Bank customers, private sector environmental specialists, and environmental advocacy groups about ways to upgrade our procedures and obtain relevant environmental information.

It was clear that Ex-Im Bank's environmental policies and procedures had to be substantially strengthened. Our existing regulations were written 15 years ago. Under these regulations, Ex-Im Bank is required to conduct environmental reviews in only a small fraction of our large-scale, long-term transactions. Ex-Im Bank is required to consider environmental impacts on the global commons and on affected third countries. Ex-Im Bank is required to look at environmental effects in the host country only if a highly toxic substance, such as arsenic, benzene or mercury, is involved. This means that Ex-Im Bank's environmental procedures did not require us to look at impacts on the host country such as air pollution, water pollution, solid waste disposal, deforestation, or soil contamination.

This is obviously unsatisfactory. We are in the process of developing new environmental procedures that will enable the Board to make well-informed environmental decisions. We have retained an expert consulting firm, which has recently worked with OPIC on environmental projects and IFC on their environmental procedures, to review our application portfolio and case processing. They will be working with us on efficient, effective environmental procedures. The work has already begun and we expect it to be completed in the next month or so.

In the meantime, since last October, our engineers have been following interim environmental procedures designed to alert the Board to the principal environmental effects in cases seeking Ex-Im Bank loan and guarantee commitments of $10 million or more. In each of these cases, the decision memo presented to the Board has a separate environmental evaluation attached to the engineering report. The environmental evaluation identifies the potential environmental effects not only of the specific items being exported but of the larger project in which the exports will be used. It discusses the applicable environmental requirements in the host country and comments on any measures that are proposed to mitigate the environmental effects. The members of the Board have found these environmental evaluations to be very informative in the decision-making process.

These interim procedures will be followed until our new environmental regulations are in place. As I have mentioned, the consultants are still working with us on our new procedures. The new procedures will be shaped by the results of the ongoing interagency process, and, as is the case with all Ex-Im Bank policy changes, we will not finalize the proposed procedures without first consulting with our customers, Congress, and other interested parties. Therefore, I cannot tell you precisely what the new procedures will be. I can give you some of the general principles that we expect to follow. We will be requiring U.S. exporters to provide us with environmental information, in addition to technical and financial information, so that we can include environmental

factors in our decisions. We will specify precisely what kinds of environmental information we need, and we will try to set forth some basic standards of environmental soundness so that the exporting community will know what to expect from us.

Although Ex-Im Bank is fully committed to adopting procedures that are environmentally responsible, we also must ensure that these new environmental procedures are sensible. Our basic mission is to promote U.S. exports and to assure that U.S. exporters can obtain financing on fully competitive terms and conditions. The environmental section of Ex-Im Bank's charter specifies that our environmental procedures must be consistent with that mission. Quite simply, we could not carry out our mission if we had to conduct full scale, time consuming environmental impact statements for every transaction. We must not shut our eyes to the reality that our foreign competitors will support projects without engaging in stringent environmental reviews.

With the help of the consultants, we are in the process of developing methods of categorizing cases so that appropriate review procedures are applied for each category of projects. I want the procedures we adopt to be streamlined, efficient and environmentally responsible. Our goal will be to obtain essential information we need without taking so long to collect and review it that we jeopardize U.S. exports. The international market is increasingly competitive; time is often of the essence in clinching a deal for a U.S. company. One way to balance the realities of global competition with our commitment to environmental soundness

is for Ex-Im Bank to assemble environmental information on particular types of exports before, not after, we receive time-sensitive applications.

We also plan to seek information from interested environmental groups early in the review process, so that serious environmental defects in a project can be identified early. This may make it possible for the project to be changed in order to mitigate the harmful environmental impacts of the project.

After all is said and done, there will be times when we will say no to financing U.S. exports because the proposed project is too damaging to the global environment for us to approve the use of U.S. taxpayer' resources to support it. An example of our new approach to looking at the environmental impacts of projects we support is the Mt. Apo geothermal facility in the Philippines. Before I became Chairman of the Bank, Ex-Im Bank issued a preliminary commitment to finance this project. We subsequently learned from environmental groups that the project raised serious environmental concerns. The Ex-Im Bank staff investigated these concerns carefully. It reviewed documents and consulted with a variety of sources, including the EPA, the Department of Interior, the World Bank, the Environmental Defense Fund, the World Wildlife Fund and Greenpeace. Because of unanswered concerns about the potential environmental damage that could be caused by this project, Ex-Im Bank staff has indicated that it is not prepared to recommend an extension of the expiration date of this transaction.

However, as I discussed earlier, unilateral action will not effectively accomplish our environmental goals. The British, French, Germans, Japanese, Italians, and others export credit agencies also must decline to support their countries' exports to those projects. We have begun a dialogue with a number of environmental groups and others in the government to begin moving this multilateral effort forward. This will not be a quick solution, but in the long run, if we succeed, it is a win-win situation: the global environment will be much better protected, and the risk of competitive disadvantage to U.S. exporters will be alleviated.

In short, environmental procedures are a big challenge for all of us at Ex-Im Bank. But we have to meet it in order to fulfill our responsibilities both to the environment and to the U.S. exporting community.

Conclusion

This Administration is strongly committed to strengthening the U.S. economy and our international competitiveness. And exports are a key to this economic growth. Ex-Im Bank is keenly aware of the export potential of the U.S. environmental goods and services industry and of the growing need for U.S. financing assistance in this area. At the same time, we are working hard to develop environmentally responsible methods of analyzing projects that come to Ex-Im Bank for support.

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Statement of Barbara J. Bramble
Director of International Programs
National Wildlife Federation

before the

Subcommittee on International Development
Finance, Trade and Monetary Policy
Committee on Banking
U.S. House of Representatives

THE ROLE OF THE EXPORT-IMPORT BANK IN FINANCING SUSTAINABLE DEVELOPMENT

February 23, 1994

I. The new Administration is wrestling with an old problem: for decades the Export-Import Bank did not appear to consider environmental impact to be an important or legitimate factor in its decisions and operations.

* The National Environmental Policy Act has existed since 1970.

* Executive Order 12114, requiring agencies to prepare and comply with special procedures for assessing environmental impacts of actions abroad, has been in place since 1978.

* The Export Enhancement Act, requiring the Bank to establish specific procedures to "take into account the potential beneficial and adverse environmental effects" of some of its programs was passed in 1992.

* The Bank does in fact have environmental impact assessment procedures in place, but they suffer from both gaps in coverage and failure of implementation. As a result, impact studies are rarely done.

II. Consequences of the Bank's failure to take environmental impacts seriously:

* Opportunities to promote energy efficiency or clean technologies may not be aggressively pursued.

* U.S. financial support may be given to projects which other funders, which are required to assess the impacts and presumably have more knowledge of the situation, have refused to fund.

* U.S. export financing supports projects which increase pollution, use inefficient technology, or divert investment from clean-up, all of which make more difficult the long-term goal of conversion to environmentally sound energy and industrial production worldwide.

III. A fundamental change in the mandate of the Export-Import Bank is needed:

* The Bank already has the authority to withhold financing from projects for environmental reasons, and to encourage beneficial projects.

* The Bank is already required to establish procedures for environmental assessment of a narrow range of projects.

* Procedures will be prepared by the new leadership which we expect will overcome the Bank's historical view of environmental considerations (as a side show and a nuisance which impede the Bank from achieving its "real" mission). The new procedures should cover a wide range of Bank projects--those which could have significant environmental impacts.

* **But this is not sufficient.**

* In the post-UNCED world, all nations have agreed (in Agenda 21) to promote sustainable development--development which is ecologically stable, economically viable and socially equitable.

* New procedures for ExIm may not be enough. **The Congress should make it clear that promoting sustainable development (including consideration of the environment) is part of the Bank's basic purpose, to be included in the definition of what the Bank does.**

IV. Meanwhile, what should the Bank do to improve its consideration of environmental and social impacts?

* There is no functional difference that sets ExIm apart from the general obligation of agencies to take responsibility for the consequences of its decisions. (All government agencies, since the dawn of NEPA, have sought one kind of exemption or other, because their circumstances were "special.")

* Therefore, the general requirement to ensure that appropriate environmental studies are done, and to take the results into account, must apply to all of the Bank's work.

* This general requirement can be adapted to the specific operations of the Bank. As we understand the Bank's situation, most applications for financing arrive long after the basic project decisions are already made. But the **Bank can require, as part of the applications process, evidence that the full environmental review, including open participation, was done by the relevant authority in the purchasing country.** If this new requirement is announced well in advance, it should cause no delay in ExIm processing.

V. The basics of environmental review have been internationally agreed, and are contained in UNEP Guidelines:

-- screening of projects, by category, to decide on the level of detail needed for adequate analysis; (see World Bank Environmental Assessment Procedures for example of such categories.)
-- for full scale environmental analysis, preparation of studies by a competent body that does not have a conflict of interest (i.e. do not use a contractor which might bid for work on the project itself);
-- consideration of all relevant alternatives to accomplish the goals of the project;
-- opportunity for public review and comment on studies, including in most cases, a public hearing;
-- if relevant, consideration of mitigation measures that could reduce the impacts of the project, and ensure their implementation;
-- explanation of basis of decision, including how public comments were taken into consideration.

* If documentation shows that this was all carried out by the competent authority (most countries now have some sort of environmental procedures in place), then in the vast majority of ExIm applications, the requirements would have been satisfied.
* Full documentation about Bank projects, including compliance with environmental requirements, should be available to the public in both the U.S. and the country where the exports are going.

VI. Two exceptions to normal procedures:
* When the required studies and procedures (particularly for public participation) are manifestly inadequate, or public protests show that they were not implemented properly;
* In the case of certain projects that are severely damaging, and the consequences irrevocable;

In these cases, the Export-Import Bank must exercise its own judgment about whether to proceed. Current law authorizes the Bank to turn such projects down.

VII. The Bank should also take a positive approach by setting up a special approval track for environmentally beneficial projects, (with screening to prevent "greenwashed" lemons from slipping through) which expedites processing.

VIII. The Export-Import Bank operates in a competitive environment, in which export credit agencies of other countries may not feel bound by the same rules.
* The United States must take the lead to build a consensus on new rules.
* Japan has already announced a new policy to include environmental considerations in its export credit decisions.

IX. The United States Government has concerns about certain projects as a policy matter, which ExIm has in the past undercut. See the examples of the Yacyreta dam (Argentina) and Pagbilao coal fired power plant (Philippines). There must be a better coordination mechanism among State, EPA, AID, Treasury, OPIC and the Export-Import Bank, to focus our nation's limited development and export credit resources on sustainable development.

STATEMENT

OF

BRUCE S. MANHEIM, JR.*

BEFORE THE

SUBCOMMITTEE

ON

INTERNATIONAL DEVELOPMENT, FINANCE, TRADE AND MONETARY POLICY

OF THE

HOUSE COMMITTEE ON BANKING, FINANCE AND URBAN AFFAIRS

ON

ENVIRONMENTAL DECISIONMAKING BY THE EXPORT-IMPORT BANK

AND

PROMOTION OF EXPORTS OF U.S. ENVIRONMENTAL PRODUCTS AND SERVICES

FEBRUARY 23, 1994

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* Of Counsel, Fox, Bennett & Turner and Vice President and Managing Director for Life Sciences, The Novus Group (a venture strategy firm that is, among other things, exploring ways to assist environmental businesses in exporting their products and services), 750 Seventeenth St., N.W., Washington, D.C. 20006; formerly Senior Attorney-Scientist, Environmental Defense Fund ("EDF"). Institutions included solely for the purpose of identification. The views expressed in this testimony are my own and do not necessarily reflect the views of EDF, Fox, Bennett & Turner, The Novus Group, or any client of the latter firms.

Mr. Chairman and Members of the Subcommittee:

Thank you for the opportunity to testify today on environmental decisionmaking by the Export-Import Bank ("Eximbank") and promotion of exports of U.S. environmental goods and services. During the past few months, much attention has been focused on the extent to which the Bank evaluates the environmental consequences of its decisions to provide financial assistance. That attention has been particularly intense for highly controversial and problematic projects, such as the Mount Apo Geothermal Project in the Philippines and the Temelin Nuclear Power Plant in the Czech Republic, where the Bank has been asked to provide substantial financial assistance. Rather than concentrating on these particular projects and others, however, my testimony summarizes the environmental record of the Bank. It then offers recommendations for revision of the Bank's policies and procedures, which the new Director has committed to strengthening. My statement concludes by suggesting that stronger environmental review by the Eximbank and other export credit agencies will ultimately enhance federal efforts to increase exports of U.S. environmental goods and services.

I. ENVIRONMENTAL ASSESSMENT BY THE EXPORT-IMPORT BANK

In January 1979, the Eximbank established procedures for environmental assessment of certain overseas projects seeking financial assistance. See 12 C.F.R. Part 409 and E.O. 12114, "Environmental Effects Abroad of Major Federal Actions," reprinted in 44 Fed. Reg. 1957, (Jan. 9, 1979). Although these procedures, and the Executive Order on which they were based, were meant to increase environmental review, they have in fact been a dismal failure. For example, it is now clear that:

> Between August 1979 and October 1991, Eximbank processed requests for financial assistance for at least 3,600 transactions. While many of these transactions involved projects with significant environmental impacts, the Bank determined that only 20 (less than 1%) required any type of environmental review.
>
> Of the thousands of projects supported by the Bank, not one was found to have a significant effect on the environment of a foreign nation or the global commons (e.g., oceans). Yet, the Bank has routinely supported actions involving mining, hydroelectric development, geothermal production, and oil and gas development on land and offshore.
>
> Although Executive Order 12114 requires federal agencies to review actions significantly affecting "natural or ecological resources of global importance,"

> Eximbank has never had to determine whether any of its actions affect such resources. That is because no such resources have ever been so designated under the Order.
>
> The 26 environmental assessments undertaken by Eximbank during the past 14 years have all been triggered by the release of chemicals that are strictly regulated under federal law. However, just over the past 4 years, Eximbank actually excluded 61 projects from review because they too release a strictly regulated pollutant -- sulfur dioxide.

Indeed, while the Order called for review of actions that may produce an emission, effluent, or principal product strictly regulated under federal environmental law, Eximbank's procedures limit review to projects releasing federally regulated substances whose "toxic effects on the environment create a serious public health risk." 12 C.F.R. § 409.4(a)(3) Although the number of compounds falling within that category may still be significant, the guidelines set out a list of just 11 compounds that trigger such reviews. This list is only meant to be "illustrative," but only once during the past 14 years has Eximbank prepared a review for substances not on the list (lead and chromium). In fact, Eximbank's illustrative list falls considerably short of the hundreds of substances that are strictly regulated under federal environmental statutes and it does not include particularly problematic compounds such as lead and dioxin.[1]

Moreover, Eximbank's guidelines actually exclude certain projects from environmental review because they release particular substances. 12 C.F.R. Part 409 (Appendix A). Many of these substances, including chlorine, ammonia, sulfuric acid, phosphoric acid, nitric acid, sulfur dioxide, nitrogen oxides, and sulfite liquors, are strictly regulated under federal law. Hence, just between October 1992 and June 1993, the Bank actually excluded 18 projects from review because they release sulfur

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[1] Such compounds include, but are not limited to, those designated under the Clean Water Act (priority pollutants, 40 C.F.R. Part 423, App. A; toxic water pollutants, 33 U.S.C. § 1317(a) and 40 C.F.R. § 1129.1; hazardous water pollutants, 33 U.S.C. § 1321(b)(2)(A) and 40 C.F.R. § 116.4), Clean Air Act (hazardous air pollutants, 42 U.S.C 7412(b)(1); extremely hazardous substances, 42 U.S.C. § 7412(r)(3); class I and class II ozone-depleting substances, 42 U.S.C. § 602(a,b)), Resource Conservation and Recovery Act (hazardous substances because of their acute toxicity, 40 C.F.R § 261.33(e); hazardous substances because of their chronic toxicity, 40 C.F.R § 261.33(f)), and Safe Drinking Water Act (chemicals for which maximum contaminant levels have been promulgated, 40 C.F.R. §§ 141.11, 141.12, 141.51, and 141.61).

dioxide. In one instance, this exception resulted in a situation where the Bank formally approved financial assistance of $185 million for a project (the Pagbilao Coal Fired Power Plant in the Philippines) even though the U.S. Executive Directors to different multilateral lending institutions had either opposed or abstained from supporting that project for environmental reasons. Eximbank did not prepare an environmental assessment of this project because it releases sulfur dioxide.

In recognition of these problems, Congress adopted certain environmental provisions in the 1992 amendments to the Export-Import Bank Act of 1945, 12 U.S.C. § 635 et seq. See § 106, Export Enhancement Act of 1992, P.L. 102-429. 106 Stat. 2186, 2189-2190. In pertinent part, those amendments declare:

> [T]he Bank shall establish procedures to take into account the potential beneficial and adverse environmental effects of goods and services for which support is requested under its direct lending and guarantee programs. Such procedures shall apply to any transaction involving a project -- (A) for which long-term support of $10,000,000 or more is requested from the Bank; (B) for which the Bank's support would be critical to its implementation; and (C) which may have significant environmental effects upon the global commons or any country not participating in the project, or may produce an emission, an effluent, or a principal product that is prohibited or strictly regulated pursuant to Federal environmental law.

Yet, a year following enactment of this provision, important sections of Eximbank's assessment procedures remain inconsistent with the Act. For example, while the Act calls for environmental review of the Bank's loan guarantee program, the Bank's current procedures limit the "actions" subject to review to those "involving Eximbank financing under the direct lending program regarding a physical project." 12 C.F.R. § 409.4(a). Indeed, the guidelines categorically exclude from environmental analysis any financing decision made under the Discount Loan and Cooperative Financing Facility programs, and the Exporter Credit Insurance and Guarantee programs. 12 C.F.R. § 409.12(c).

At the same time, while Eximbank's existing procedures may be consistent with the Act in limiting environmental review to projects where the Bank's support would be critical to implementation, the guidelines are arguably inconsistent with the Act's $10,000,000 criterion. That is, they may potentially limit the actions subject to environmental review if that amount does not constitute a significant percentage of Eximbank financing of the total cost of the project or is a relatively low percentage of Eximbank financing of the total financing of U.S. goods and services being purchased. 12 C.F.R. § 409.8(b) Moreover,

although the 1992 legislation called for review of actions that may produce an emission, an effluent, or a principal product strictly regulated under federal environmental law, Eximbank's procedures continue to exclude projects from analysis if they release certain of these substances and the guidelines narrowly define the types of compounds that trigger such reviews in the first place.

II. EFFORTS BY THE EXIMBANK TO REVISE ITS ASSESSMENT PROCEDURES

Fortunately, the new Director of the Bank has acknowledged the failures of the past and committed to revising and strengthening the Bank's assessment procedures substantially.[2] To that end, it will be useful for the Bank to observe various provisions that currently govern decisions by other federal agencies heavily involved in financing projects abroad. For example, under the Foreign Assistance Act, the Overseas Private Investment Corporation ("OPIC") must undertake an environmental review of projects involving requests for insurance. 22 U.S.C. § 2199(f). In addition, OPIC must prepare environmental assessments of projects where the host country is participating. 22 U.S.C. § 2199(f) and 22 U.S.C. § 2151p(c)(1,2). OPIC must also consider any comments it receives on a project before it agrees to support it. 22 U.S.C. § 2197(m)(1) And, where OPIC decides to support a project, it must notify appropriate government officials in the host country of relevant guidelines and standards adopted by the World Bank and other international organizations, and of any U.S. restriction that would apply to the project if it were undertaken in the United States. 22 U.S.C. § 2197(m)(1)

Of course, another authority the Bank would be well-served in reviewing is the National Environmental Policy Act ("NEPA") and the implementing regulations of the Council on Environmental Quality ("CEQ"). Enacted in 1970, NEPA requires all federal agencies to disclose the harmful impacts of projects they undertake, fund, or approve and it requires them to consider alternatives that avoid or reduce such impacts. Although Eximbank may dispute the need to comply with NEPA[3] and it may

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[2] In a November 10, 1993 letter to the Environmental Defense Fund, Kenneth Brody, President and Chairman of the Bank, stated that "Eximbank's environmental policies and procedures must be substantially strengthened" and that his goal was to "reshape Eximbank practices to reflect the Clinton Administration's commitment to protecting the global environment."

[3] Historically, the Eximbank has taken the position that NEPA does not govern its decisions about financial assistance to projects overseas. That interpretation was grounded in the State

raise concerns about its ability to comply with the statute, it should be noted that the Agency for International Development ("AID") overcame similar questions after issuing regulations applying NEPA to its actions abroad. Those regulations resulted from settlement of a lawsuit that the Environmental Defense Fund brought against AID over its failure to comply with NEPA. As part of the settlement of that lawsuit, AID agreed to promulgate regulations applying NEPA to its overseas actions. See Environmental Defense Fund v. Agency for International Development, 6 Envtl. L. Rep. 20,121 (D.D.C. 1975) Following issuance of these new rules, the agency's Administrator declared:

> Our overall experience is a positive one . . . . The practical experience of AID has been that it is possible to undertake detailed environmental analyses of U.S. supported projects abroad and that the results obtained are useful to us, as well as host country planners, in making project decisions. AID's experience, moreover, has demonstrated that, in practice, none of the four potential negative impacts hypothetically associated with the conduct of environmental analyses . . . constitutes a significant problem for agency operations . . . . In summary, AID has no significant reservations about the preparation of environmental analyses for programs conducted abroad. See Letter from John Gilligan, Administrator, AID to Charles Warren, Chairman, CEQ, Dec. 9, 1977, reprinted in The Environmental Impact Statement Process under NEPA, III at iii 33 (1978).

Inasmuch as NEPA affords federal agencies sufficient flexibility to undertake environmental reviews, Eximbank should seriously consider conducting its assessments under the umbrella of the statute. Moreover, even if it chooses not to do so, the Bank should closely review the CEQ guidelines. Indeed, as set out below in some detail, they go well beyond Eximbank's current procedures:

> Categorical Exclusions: CEQ's procedures provide that federal agencies need not prepare environmental documents

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Department's conclusion shortly following enactment of NEPA that the Act does not apply to federal projects in foreign countries. In reaching that conclusion, the State Department invoked the "presumption against extraterritorial application of United States law." Most recently, however, a unanimous panel of the Court of Appeals for the District of Columbia Circuit rejected an interpretation of NEPA based on the presumption against extraterritorial application of United States law. See Environmental Defense Fund v. Massey, 986 F.2d 528 (D.C. Cir. 1993).

for a "category of actions which do not individually or cumulatively have a significant effect on the human environment." 40 C.F.R. § 1508.4. Such "categorical exclusions" must be identified in an agency's regulations implementing NEPA and such regulations must provide for "extraordinary circumstances" in which a normally excluded action may have a significant effect requiring environmental analysis. In its procedures implementing the Executive Order, Eximbank does not include an "extraordinary circumstances" exception and it categorically excludes from environmental analysis, among other things, any financing decision made under its Discount Loan and Cooperative Financing Facility programs, and its Exporter Credit Insurance and Guarantee programs. 12 C.F.R. § 409.12(c)

Major Federal Action: Under CEQ's regulations, the term "major federal action" is defined to include "projects and programs entirely or partly financed . . . .by federal agencies; new or revised agency rules, regulations, plans, policies, or procedures; and legislative proposals." 40 C.F.R. § 1508.18(a). On the other hand, Eximbank's procedures limit the term "actions" to those "involving Eximbank financing under the direct lending program regarding a physical project." 12 C.F.R. § 409.4(a). At the same time, while the CEQ regulations do not delimit "major federal actions" through an analysis of the degree of federal involvement, Eximbank's procedures set out five factors for determining whether an action is a "major" one. 12 C.F.R. § 409.8(b) Accordingly, Eximbank's procedures potentially very narrowly circumscribe the actions subject to environmental review.

Significant Impact: Under NEPA, every federal agency must prepare an environmental impact statement ("EIS") for any action that may "significantly impact the quality of the human environment." 42 U.S.C. § 4332(2)(C). In fleshing out what constitutes a significant impact, the CEQ regulations do not delimit the term environment and they specify a number of factors that agencies must review in determining significant impact. 40 C.F.R. § 1508.27. Much more narrowly, and without spelling out such factors, Eximbank's procedures provide that an environmental document will only be prepared for major actions with significant effects on the: (1) global commons; (2) "environment of a foreign nation not participating or otherwise involved in the action"; and (3) "natural or ecological resources of global importance designated for protection" under E.O 12114. 12 C.F.R. § 409.8(c). (emphasis added)

Determinations Not To Prepare an Environmental Document: The CEQ regulations provide that a federal agency must prepare an "environmental assessment" ("EA") where it is unclear

whether an action may have a significant impact on the environment. 40 C.F.R. § 1501.3 An EA is a "concise public document" that contains "sufficient evidence and analysis for determining whether to prepare an EIS. 40 C.F.R. § 1508.9(a). It must include a discussion of the need for the proposal, of alternatives to the proposed action, [and] the environmental impacts of the proposed action and its alternatives." 40 C.F.R. § 1508.9(b). On the other hand, Eximbank's procedures call for a review of the proponent's application to determine whether a project would have a significant effect. 12 C.F.R. § 409.8(c) Such applications need only include a description of the project and its purpose and location. 12 C.F.R. § 409.6(a). However, applicants may be requested to provide additional information about proposed alterations to the environment; emissions, effluents, or products resulting from the project; efforts that will be taken to mitigate degradation; and relevant technical information and laws or regulations in the project area. 12 C.F.R § 409.6(b). On the basis of whatever information is supplied in the application, the Engineer then makes a determination as to significant effects. If the Engineer concludes that the project will not have a significant impact, he need only include a "brief statement of supporting reasons in the Board Memorandum." 12 C.F.R. § 409.8(c).

Contents of Environmental Documents for Actions with Significant Effects: Where a federal agency determines under NEPA that an action may significantly affect the environment, it must undertake a comprehensive analysis of impacts and alternatives to the proposed action in an EIS. In contrast, Eximbank's procedures provide that an environmental document need only "concisely review the anticipated significant environmental effects of the physical project." 12 C.F.R. § 409.10(a). Where "feasible," such documents will include a summary of the major findings and conclusions of any environmental review undertaken in the foreign nation; a brief review of the existing environment that would be affected by the physical project; a statement as to the significant foreseeable environmental effects; a statement as to whether there are in effect any relevant environmental regulations or laws in the physical project area . . . . 12 C.F.R. § 409.10 Consequently, Eximbank's procedures do not require a level of analysis consistent with NEPA of the impact of the project on the environment.

Analysis of Alternatives: As stated in the CEQ regulations, the "heart of the environmental impact statement" is the section addressing alternatives to the proposed action. 40 C.F.R. § 1502.14 In this section, agencies must "rigorously explore and objectively evaluate all reasonable

alternatives," including the alternative of no action and alternatives not within the jurisdiction of the lead agency. Agencies must then present the environmental impacts of the proposal and the alternatives in comparative form, "thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public." In contrast, Eximbank's procedures governing preparation of "environmental documents" for major actions with a significant impact on the environment do not call for any evaluation whatsoever of alternatives to the proposed action. 12 C.F.R. § 409.10.

Notification of the Availability of Final Environmental Documents: The CEQ regulations require each agency to provide public notice of the availability of environmental documents "so as to inform those persons and agencies who may be interested or affected." 40 C.F.R. § 1506.6(b) Environmental documents include EA's, FONSI's, EIS's, and a Notice of Intent to prepare an EIS. 40 C.F.R. § 1508.10. In all cases, an agency must mail a notice to those who have requested it on an individual action. 40 C.F.R. § 1506.6(b)(1). In the case of an action with effects of national concern, notice must include publication in the Federal Register and notice by mail to "national organizations reasonably expected to be interested in the matter." 40 C.F.R. § 1506.6(b)(2). On the other hand, Eximbank's procedures provide only that, "[p]romptly upon completion of an environmental document, the Engineer will notify where feasible and appropriate all Federal agencies with relevant expertise and any affected nation of the availability of such document. 12 C.F.R. § 409.11.

Federal Agency Review: The CEQ procedures require an agency, after preparing a draft EIS, to obtain the comments of any other agency which has jurisdiction by law or special expertise with respect to any environmental impact involved in the proposed action. 40 C.F.R. § 1503.1. In addition, under Section 309 of the Clean Air Act, the Environmental Protection Agency ("EPA") is directed to review and comment publicly on the environmental impacts of federal activities, including actions for which EISs are prepared. 42 U.S.C. § 7609. If, after this review and the agency's response to it, EPA determines that the matter is "unsatisfactory from the standpoint of public health or welfare or environmental quality," EPA may refer the matter to the CEQ for evaluation and recommendation for appropriate action. 40 C.F.R. Part 1504. In contrast, Eximbank's procedures do not involve other relevant agencies in the preparation of environmental documents and Eximbank need only advise other federal agencies, where "feasible and appropriate," of the availability of final documents.

Judicial Review: It is well established that interested members of the public have a right to seek judicial review of agency actions under NEPA and the Administrative Procedure Act. Indeed, the CEQ regulations themselves provide that "the President, the federal agencies, and the courts share responsibility for enforcing the Act." (emphasis added) 40 C.F.R. § 1500.1. In contrast, Eximbank's procedures state that Section 3-1 of the Executive Order "the provides that it is solely for the purpose of establishing internal procedures for Federal agencies to consider the significant effects of their actions on the environment outside the United States, it territories and possessions. Nothing in these procedures shall be construed to create a cause of action." 12 C.F.R. § 409.14.

Of course, beyond existing domestic legislation, it will be extremely important for Eximbank to shape its guidelines based on its review of environmental review procedures now established by most international financial institutions, including the World Bank, International Finance Corporation, InterAmerican Development Bank, Asian Development Bank, and African Development Bank. At the same time, Eximbank would be well-served in evaluating the environmental procedures and policies of certain commercial banks, including the Bank of America, National Westminster Bank, and the Royal Bank of Canada. These banks, and others, have incorporated environmental considerations into their lending practices. Using such initiatives as starting points, Eximbank will be in a good position to strengthen its assessment procedures and ensure that it makes environmentally responsible decisions.

III. BOOSTING EXPORTS OF U.S. ENVIRONMENTAL PRODUCTS AND SERVICES

Ultimately, while stronger assessment procedures will lead to better environmental decisionmaking by the Bank, they will also create larger opportunities for exporters of U.S. environmental goods and services. On this latter point, the Export Enhancement Act did "encourage" the Bank to use "its programs to support the export of goods and services that have beneficial effects on the environment or mitigate potential adverse environmental effects." At the same time, the legislation directed Eximbank to appoint an official to determine ways that the Bank's programs can be used to support the export of such goods and services. The officer was also directed to act as a liaison between the Bank and other federal agencies, including those agencies whose representatives are members of the Environmental Trade Promotion Working Group of the Trade Promotion Coordinating Committee.

Although these are useful and necessary steps, they nonetheless fall short of actively creating demand for

environmental products and services. Inevitably, that demand will be driven by the need for foreign entities to comply with more stringent environmental standards. The Eximbank can influence such standards in several significant ways. First, by simply increasing the number of projects for which it prepares assessments, the Bank could create demand for U.S. environmental technology. Indeed, it is clear that the increased scrutiny an assessment attaches to a project has led, in most cases, to the U.S. exporter and/or the foreign purchaser agreeing to design the project (i.e., incorporate certain environmental technology) so that it would comply with relevant regulations and standards established by the Environmental Protection Agency.[4]

Second, because environmental assessment is essentially a procedural safeguard, adoption of substantive standards by the Bank to govern its lending decisions will also enhance exports of environmental technology. On this point, the Export Enhancement Act declares:

> The [assessment] procedures established under paragraph 1 shall permit the Board of Directors, in its judgment, to withhold financing from a project for environmental reasons or to approve financing after considering the potential environmental effects of a project.

Yet, in contrast to that discretionary mandate, the Foreign Assistance Act directs OPIC to "utiliz[e] broad criteria, in undertak[ing] . . . to refuse to insure, reinsure, guarantee, or finance any investment in connection with a project which the Corporation determines will pose an unreasonable or major environmental, health, or safety hazard, or will result in the significant degradation of national parks or similar protected areas. 22 U.S.C. § 2191(n) At the same time, OPIC must "especially ensure" that the project seeking assistance is consistent with provisions of the Foreign Assistance Act "relating to the environment and natural resources of, and tropical forests and endangered species in, developing countries . . . ." 22 U.S.C. § 2191(3) Although I have not evaluated

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[4] This occurred when the Bank prepared assessments for a polyvinyl chloride plant in Colombia (Dec. 29, 1980) (vinyl chloride); chlorine-caustic soda plant in Israel (Nov. 24, 1980) (mercury); a polyvinyl chloride manufacturing complex in Indonesia (June 16, 1983)(vinyl chloride); linear alkylbenzene processing complex in Algeria (Feb. 23, 1988) (benzene); polyvinyl chloride manufacturing facility in China (Sept. 22, 1988) (vinyl chloride); the Barrancas Water Reservoir in Venezuela (April 6, 1990) (lead and chromium); ethylbenzene manufacturing plant in China (Sept. 15, 1992) (benzene); and a polyvinyl chloride plant in Colombia (April 27, 1993) (vinyl chloride).

OPIC's lending practices in great detail, imposition of similar substantive standards on the Eximbank should enhance exports of environmental technologies.

Fortunately, Eximbank has recognized that it will need to establish substantive environmental standards governing lending decisions. So as not to place U.S. exporters at a competitive disadvantage, the Bank has indicated that it would like to pursue adoption of uniform procedural guidelines and standards among the export credit countries in the context of the Organization for Economic Cooperation and Development ("OECD"). Clearly, this initiative, if successful, would create an even larger market for U.S. environmental goods and services and will result in better environmental decisionmaking by all export credit agencies. Accordingly, I would strongly support such efforts, although I would encourage the Bank to take the lead in the interim by establishing stronger assessment procedures and standards for its own lending decisions.

That completes my testimony. I would be happy to answer any questions that you may have.

February 23, 1994

STATEMENT OF JAMES N. BARNES

on behalf of

FRIENDS OF THE EARTH

before the

SUBCOMMITTEE ON INTERNATIONAL DEVELOPMENT, FINANCE, TRADE and MONETARY POLICY

of the

HOUSE COMMITTEE ON BANKING, FINANCE and URBAN AFFAIRS

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I. Introduction and Summary

I am James N. Barnes, Director of the International Department at Friends of the Earth. Friends of the Earth has 52 affiliates around the world, all part of FoEI family, including a member group in the Czech Republic, location of the Temelin nuclear reactor.

Friends of the Earth is pleased to have the opportunity to testify today about the U.S. Export-Import Bank, an institution that ought to be playing an important role in protecting the environment, promoting sustainable development, and helping sell the best U.S. technology available. We appreciate the Subcommittee's interest in this subject.

The U.S. Export-Import Bank, under its new President Ken Brody, has begun to reach out to the environmental community in this direction. Based on the meetings that have been held in recent months between senior ExIm Bank officials and representatives of Friends of the Earth and other environmental organizations, we believe the time is ripe for Congress and the Administration to jointly forge a new course for the Bank. At the same time, given the existence of other export agencies similar to the ExIm Bank in other donor countries, a concerted diplomatic effort is required to move those institutions along a similar path.

A review of the ExIm Bank's existing portfolio reveals that some loans ought not to have been made if environmental protection

and sustainable development were among the guiding criteria used to evaluate potential investments. At present it does not follow a rigorous policy of evaluating proposed loans and guarantees for their environmental impacts. If it did have such a practice, we believe that the problem loans would not have been made.

Many loans and guarantees in the portfolio are at best neutral in terms of their environmental implications. There are very few really "good" loans in the portfolio. The ExIm Bank does not have affirmative policies on global environmental issues that are dealt with in the Montreal Protocol on Ozone Depletion, the Climate Change Convention, the Biodiversity Convention, or other aspects of what emerged at the Rio Earth Summit in Agenda 21. Thus, it is no surprise that its loans, guarantees and other economic activities are not oriented toward the furthering of the goals and obligations of those important international instruments.

The Export-Import Bank could play a major role in leading international finance away from the funding of typical development schemes and in the direction of resolving some of the serious natural resource problems confronting the world. The ExIm Bank needs to adopt a broad goal in its overall lending so that it has a rationale for choosing among competing loans. The ExIm Bank is missing tremendous opportunities for helping create jobs in these areas, for example by focusing on the needs of other countries in phasing out ozone depleting substances, which require the building of new factories and use of new equipment where the U.S. is a leader.

By adopting a broad vision of helping to build sustainable economies worldwide, the Bank could then formulate more specific goals in particular areas. For example, we would hope that the Bank would agree that one of its most crucial roles is to assist developing nations in using energy more efficiently, and that this could be done by supporting exports of the best U.S. technology and know-how available.

For fiscal year 1995 we would like to see the beginning of a fundamental shift in the U.S. Export-Import Bank's programs, be they in the form of direct loans, guarantees or insurance. As mentioned above, given the competitive nature of the various export agencies with which the ExIm Bank is "competing" it will be essential for the Administration to launch an initiative to "green" those agencies, using the G7 Economic Summit as an initial opportunity. We look forward to working closely with the Administration, officials at the ExIm Bank and Congress to achieve these objectives.

We believe that it also is important for the ExIm Bank and its sister export agencies to develop a common approach to reviewing the environmental implications of proposed projects. Now that the World Bank and the regional Multilateral Development Banks have implemented environmental assessment procedures, and OPIC has agreed to meet World Bank requirements, there is no reason for the ExIm

Bank to lag behind. Indeed, we believe that ExIm should be fully subject to the requirements of NEPA, and that the specific procedures developed for compliance can be a model for other countries to follow.

This testimony also addresses the Export-Import Bank's proposal to provide a guarantee for a Westinghouse contract for the Temelin nuclear reactor in the Czech Republic. The guarantee would be for at least $317 million for loans to the Czech Power Company by Citibank, in support of Westinghouse supplying control systems and fuel rod assemblies. Friends of the Earth submits that this is a badly flawed decision by the ExIm Bank. Advisors to the Special Delegation from Austria have prepared a detailed Technical Memorandum Regarding The Temelin Nuclear Power Plant, which outlines the case against Temelin in detail. I am asking that this Technical Memorandum be included in the record of today's hearing, as an appendix to my testimony. I urge every Member to read the Technical Memorandum.

Friends of the Earth is asking Congress to take a series of steps that will lead to a reversal of the ExIm Bank decision to be involved with Temelin. We are calling on Congress to do so before March 3, which is the deadline prescribed by the statute giving Congress oversight regarding the Temelin case. Although a vote by the Banking Committee may not, in strict legal terms, compel the ExIm Bank to reverse its decision, a clear statement by Congress about this project will have a significant political impact. Ultimately, Congress could take steps to block the project by using the power of the purse. We hope that such a step does not become necessary. We are confident that after reading the Technical Memorandum and considering all of the facts, Congress and the Administration will agree that this is not the sort of project the U.S. should be involved with.

We also ask Congress to be vigilant about the possibility of any U.S. agency, including especially the Export-Import Bank and the Army Corps of Engineers, being involved with financing or technical assistance regarding the proposed Three Gorges Dam project in China. This mega-project would displace more than one million people and cause huge environmental impacts. Our understanding is that the Bureau of Reclamation is in the process of establishing a firm policy against any such involvement, but that thus far neither the ExIm Bank nor the Corps are in the process taking similar steps.

II. Overview of the Export-Import Bank's Portfolio

According to its 1993 Annual Report, in FY93 the ExIm Bank lent $1.721 billion for 73 projects and provided guarantees amounting to $9.084 billion for 441 projects. The list of projects includes numerous manufacturing facilities in basic industries, many aircraft deals, and lots of investments in mining, oil drilling and energy generation.

The Bank approved funding for 22 energy sector projects in FY93, six loans totaling $744 million and 16 guarantees totaling $691 million. Not a single loan or guarantee had as its primary purpose the support of end-use efficiency improvements among electricity consumers. Many ExIm projects in recent years have involved large-scale energy investments. In FY93 the Bank lent $378 million for two petroleum refining projects and provided $447 million in loans for five others. It lent $121 million for five oil and gas extraction projects and provided $775 million for 26 other similar projects.

Although the ExIm Bank claims on page 11 of its Annual Report that it supported $424 million in environmentally beneficial exports in 1993, that list includes a controversial geothermal plant in the Philippines that has been strongly opposed by the local community for many years, and a large hydro dam in Mexico that was opposed by many environmental groups. Even the World Bank refused to lend to the Philippine project because of the intense opposition of local indigenous people. In general, ExIm has been counting large hydro projects as environmentally beneficial, a proposition with which we and many NGOs would strongly disagree. Last year, as the U.S. Executive Director to the World Bank was voting against the Yacyreta Dam in Argentina, the ExIm Bank was providing a loan for the hydroelectric turbines for that dam. Thus, the ExIm Bank acted in disregard of the concerns being expressed by the U.S. Treasury Department about that project. ExIm approved funding for the Hopewell coal-fired thermal generating plant in the Philippines at the same time as the U.S. Executive Director to the World Bank abstained from voting, citing environmental reasons. These types of cases clearly demonstrate the need for strong environmental guidelines, environmental assessment requirements, and a fresh approach.

In funding these types of projects, the Bank is missing the opportunity to help developing nations meet their power needs in the most cost-effective and environmentally sound way possible: by funding projects designed to improve energy efficiency.

III. Proposed Changes in the Export-Import Bank's Mandate

Friends of the Earth is putting forward a number of specific proposals for what the Congress should require the ExIm Bank to do. A similar list of proposals should be promoted by the Administration at high levels, with the goal of having them adopted by the other export agencies. In our view, this important initiative should begin immediately and should be incorporated into the Administration's goals for this year's G7 Economic Summit. Our proposals are that the ExIm Bank should be required to:

(1) promote environmental restoration and pollution prevention lending as a priority;

(2) implement its existing mandate to promote lending for energy conservation, solar, energy efficiency, renewable energy, demand-side management and Integrated Resource Planning, and other least-cost approaches;

(3) explicitly adopt a policy against loans for nuclear, large-scale hydro, and coal power projects;

(4) pursue special outreach initiatives so that smaller companies with expertise in solar and efficiency can get a fair and growing share of the Agency's funds;

(5) focus on investments in basic societal infrastructure such as schools, health clinics, clean water, sewerage, justice systems, libraries and mass transit, which will better help people and societies with the tools allowing them to live productive and decent lives;

(6) promote sustainable agricultural technologies, including Integrated Pest Management;

(7) adopt basic environmental procedures requiring environmental assessments, public participation and openness, and consideration of a range of options;

(8) act as a catalyst or a leader among the export-import agencies of developed nations to produce significant, changes in the loan portfolios;

(9) publicize the fact that the Bank is eagerly seeking applications in these areas and conduct seminars for interested parties;

In short, Congress should instruct the Export-Import Bank to pursue many more opportunities to promote U.S. involvement in projects overseas that have the characteristics outlined above.

Improving energy efficiency is now widely accepted as the cheapest way to meet increasing demand for electricity. Pacific Gas and Electric, the largest private utility company in the U.S., plans to meet 75 percent of the increased demand it will face in the next decade by increasing its customers' energy efficiency. Many developing nations have the potential for energy efficiency gains even greater than the U.S. because much of their technology base is significantly outdated and inefficient. Efficiency improvements not only provide the least cost means for developing countries to meet their growing energy needs, they also strengthen the industrial sector in the developing world by making its industries more productive and competitive in global markets. Energy efficiency is a strong growth market both domestically and internationally. Investments in energy efficiency and conservation create many more jobs than investments in conventional energy projects.

Improving energy efficiency is also the key method of meeting expanding electricity demand that has a positive impact on the environment. Improved efficiency allows an economy to produce more goods that people need without requiring additional generating capacity. This conserves limited non-renewable energy resources for the future and avoids impacts associated with thermal, hydroelectric, and nuclear power generation. In short, increased efficiency not only leads to a healthier economy, but a healthier environment as well.

Since many developing nations already have crushing foreign debt burdens, it is critical that they meet their energy needs in the least costly way possible. Increasing efficiency not only provides this least cost solution, it also increases local industrial competitiveness while protecting the overtaxed natural resources of the developing world.

Congress should take note of the existence of the Business Council for a Sustainable Energy Future, which is positioning itself to assist in promoting exports of their members' technologies and services. It is working closely with the Committee on Renewable Energy, Commerce and Trade (CORECT), an interagency government working group that promotes exports of U.S. renewable energy technologies. Although CORECT has existed since 1984, it has not been notably effective. However, with the Administration's National Export Strategy for Environmental Technologies having been announced last year, there appears to be a focus now in seriously and consistently promoting clean and efficient energy technologies, pollution prevention and other positive things.

We urge that the ExIm Bank be assisted by Congress and the Administration in changing its priorities. We greatly appreciate the willingness of President Brody and his staff to consider new options. Through the internal Task Force on environment, the Bank has been exploring how its environmental policies and procedures can be strengthened. We note with approval the statement in the Annual Report that "Our goals are to take into account the environmental consequences of Bank-financed transactions and to promote increased exports of environmentally beneficial U.S. products and services.

IV. Nuclear Power in Central and Eastern Europe (CEE)

One of the most pressing environmental issues in Central and Eastern Europe is the fate of the Soviet-built nuclear power reactors that could well produce another Chernobyl-type disaster. Indeed 15 Chernobyl-design reactors are still operating in the region, and all of the old Soviet-designed facilities suffer from serious flaws. In our view, U.S. and multilateral policy towards these ecological time-bombs has been notably complacent.

Friends of the Earth-England completed an analysis of Western

aid to the nuclear power sector in CEE as of 15 November, 1992. The report reveals that:

(1) The total sum of money provided by Western governments to the CEE nuclear sector is tiny compared to the multi-billion dollar needs to close down and decommission the region's chronically unsafe reactors, including as an initial priority the 15 of Chernobyl design;

(2) Twice as much of the money that has been committed by the West has been for expanding nuclear power generation as is going towards improving reactor safety;

(3) The U.S. contribution exemplifies this imbalance. While a paltry $15 million was going into reactor safety through AID in 1992, the NRC, the DoE, and the Export-Import Bank decided to get involved in a large guarantee package for Westinghouse to complete a partially constructed reactor at Temelin in the Czech Republic. Although this is being justified as a "nuclear safety" upgrade, the bottom line is that it will allow expanded nuclear power generation.

For last year's G7 Economic Summit, Friends of the Earth-U.S. published "Russian Roulette: Nuclear Power Reactors in Eastern Europe and the Former Soviet Union" (July 1993), a report demonstrating that closing Soviet-built nuclear power plants throughout CEE is ecologically imperative and economically sensible, given that energy efficiency measures and safer gas-fired power stations could comfortably cover the region's energy needs. CEE countries are between one half and one fifth as efficient in their use of energy as the countries of the West. World Bank analysis indicates large efficiency improvements coming with the introduction of market economics. Over time, the region should need less, not more, electricity generating capacity. A copy of "Russian Roulette" is being submitted as an exhibit to this testimony, and we ask that it be made part of the Record of this Hearing.

U.S. support for the completion of reactors in this region, or indeed anywhere in the world, opens up very serious questions of liability should a plant explode. It should be kept in mind that the Chernobyl disaster's economic costs have been of a magnitude comparable to the U.S. Savings and Loan bailouts.

This situation points to three important policy changes that we are asking Congress to consider:

(1) It should be a policy of the U.S. Government not to provide assistance for expansion of nuclear power in Central and Eastern Europe through either bilateral bodies such as the ExIm Bank or multilateral

institutions such as the EBRD.

(2) The U.S. needs an aggressive national policy to close these reactors. In case of another major accident, not only will the human and environmental costs be devastating but the economic losses could well upset one or more nations' whole economic recovery plans. The State Department, AID, DoE, EPA and other relevant Agencies should bring forward a plan to close down and decommission the dangerous reactors in Central and Eastern Europe. At the same time through both bilateral and multilateral assistance the U.S. should be promoting efforts to improve the region's energy efficiency, which would not only allow for the shutdown of the nuclear plants, but would also cut other energy-sector related pollution.

(3) The ExIm Bank should prepare and/or require Environmental Impact Statements in accordance with the National Environmental Policy Act (NEPA) for the projects it funds, when those projects involve significant environmental risks. Otherwise, there is no way to know the true environmental and social costs and benefits of a proposed project.

V. The Temelin Case

Turning specifically to the Temelin case, Friends of the Earth is calling on Congress to review the record carefully and to take steps in the Banking Committee, in the Senate Banking Committee and if need be through an act of Congress, to reject the ExIm decision. We recognize that the statute's language is ambiguous about the legal impact of any particular vote by the Committees. But at the same time, Congress holds the power of the purse and has ultimate oversight authority over the ExIm Bank. The statements, resolutions and votes of Congress concerning the Temelin project will be listened to very carefully by the Administration and the ExIm Bank. Ultimately, there is no doubt that Congress could vote to stop U.S. involvement with this project.

Submitted as an appendix to this testimony is a detailed dossier compiled by the advisors to the delegation from Austria that is now visiting the U.S. to discuss Temelin with officials. **Friends of the Earth affiliates in the U.S., Austria and the Czech Republic, along with many other organizations such as Greenpeace and the Natural Resources Defense Council, fully endorse this Technical Memorandum. It clearly catalogues in full detail the many outrageous aspects of this proposed project. We urge Congress to carefully consider this dossier. After doing so, we feel certain that Congress will agree that it is simply unconscionable for the U.S. to be involved with Temelin.**

We urge Congress to meet with the delegation from Austria that is here in Washington, and to listen carefully to their legitimate concerns. The Temelin reactor is about 40 miles from the Austrian border. Their concerns are fully legitimate.

Based on the materials and a review of the record that is available to Friends of the Earth, we submit that providing a guarantee for this loan is against the interests of both the Czech people and the people of the U.S. The U.S. ExIm Bank should not be allowed to guarantee the Citibank loan to Westinghouse. There are other, much better ways for the Clinton Administration to assist the Czech Republic move forward on energy, which are articulated in the alternatives section of our report "Russian Roulette: Nuclear Power Reactors in Eastern Europe and the Former Soviet Union" (July 1993), as well as in various World Bank and EBRD reports.

A. National Security Council Review

At the outset, I would like to express our very serious disappointment at learning only a few weeks ago that the U.S. National Security Council undertook a Government-wide review of the Temelin proposal last year without any consultation with public interest organizations here. In spite of the fact that Friends of the Earth and many other organizations were publicly raising serious questions about the project, and about the question of these dangerous Soviet-designed nuclear reactors in general, we were not even informed about the NSC review, much less given an opportunity to comment. We obtained a copy of the NSC review not from the Administration but from Congress. This is not the sort of democratic approach that one would hope for from this Administration. We ask Congress to make it clear to the NSC that if in the future such a case were to be considered, it should not be carried out in secret.

The NSC Review ignores many important facts, and is seemingly fixated on justifying the ExIm guarantee for Westinghouse. There are reports that other similar projects are also under review by DoE, the State Department and NSC, and we ask that Congress require such reviews to be conducted on the basis of full public information and involvement. There is simply no basis for this secrecy, particularly when we are requiring the MDBs to be transparent regarding their projects.

The NSC did not require ExIm to request that an environmental impact assessment or its functional equivalent be done, with an opportunity for public comment in the Czech Republic and the U.S. For a financing package of this magnitude, involving something as sensitive as a nuclear power plant, there can be no doubt that ExIm should require a through, integrated impact assessment that includes a full analysis of alternatives.

We believe that the Memorandum from the National Security Council to the ExIm Bank dated September 29, 1993, which includes a ten-page Technical Analysis on safety and environmental issues, is badly flawed and indeed misleading. The Technical Memorandum prepared by the advisors to the Austrian delegation provides accurate information about many issues that were ignored or avoided in the NSC materials.

B. The Temelin Reactor

The ExIm loan guarantee would cover Westinghouse controls and fuel rod assemblies for the plant, a VVER 1000/320 design, which is a flawed Soviet shell. Despite what the NSC paper says, this is a dangerous hybrid combination of technology that has never been tried before. The Soviet VVER 1000/320 model contains a number of serious design flaws that will not be corrected by Westinghouse's proposed modifications to the safety systems. The IAEA released a report in April 1993 that identified 16 areas where the VVER 1000/320 design standards and codes are deficient as compared to U.S. and IAEA standards. They include:

(1) Because of the design, there is a likelihood of accelerated embrittlement of the containment vessel walls. This means higher maintenance costs, shorter expected operating life (and thus poorer economics) and also a greater risk of an accident. The containment is more vulnerable in an emergency than Western-designed containment vessels, despite the soothing assurances in the NSC report.

(2) Temelin is using components of known faulty design. The steam generators are of the same design as the VVER-1000's in the CIS and CEE, even if they are machined in the Czech Republic. In those plants, 36 of 64 have prematurely failed.

(3) The software planned for Temelin was recently tested by Rolls Royce for the British Nuclear Inspectorate and it failed in 52 percent of the 50,000 tests. This does not raise confidence that this safety software will operate the plant flawlessly, as is necessary for nuclear plant.

(4) A fundamental construction defect in the design of the reactor core causes the reactor, like the RBMK, to exhibit positive temperature feedback and xenon flux flucturation at certain operating levels. (See Permanent Monitoring Group on Plant Safety: Control Report No. 13, November 1988.) So far as we know, this has not been addressed by the IAEA.

(5) The plant layout results in fire hazards (same cite as

above), and even the NSC report notes that this is "significantly deficient by Western standards" (P.6). Note that there have been several fires at the Czech Dukovany nuclear plant during the past year.

The Temelin plant could not be built and licensed in the U.S., an issue avoided by the NSC. It does not and will not meet U.S. safety standards in numerous areas, including containment and fire safety, and couldn't be licensed here. Although one hears that the IAEA has approved the proposal, we are unaware of any formal proceeding on the subject or a vote of any sort, and in any event it must be kept in mind that the IAEA is in favor of nuclear power. In any event, it is clear that the IAEA has never, as an official body or an official matter, said that the VVER-1000 can be upgraded to Western safety standars.

In Germany, continued construction of a VVER1000 reactor in the former East Germany was halted by the Government after no contractor was willing to undertake the risk of completing the plants. It is reliably reported that Germany will not guarantee loans for Sieman's competing proposal for the Temelin plant. Germany canceled all plants to build VVER 1000 plants after concluding they could not be upgraded to appropriate safety standards.

Contrary to the glib statements in the NSC report, the CEZ has a poor history of operating plants in terms of safety and environmental problems. For example, its Dukovany NPP has repeatedly released unexpected and dangerous levels of radiation into a neighboring river. On February 3 this year, a serious fire broke out at the plant. In the period 1987-1992, there were 47 emergency shutdowns.

Temelin will produce pollution even during "safe" operation. CEZ plans to release waste water contaminated with tritium continuously into the Vltava River, which provides 60 percent of Prague's drinking water. Also, the heat releases from Temelin's cooling towers would contribute to inversions and smog in the winter, and heavy precipitation in the summer.

The power to be produced is not needed for Czech industry in the near future. The World Bank studies and others show that the Czech economy will not require additional generating capacity for the foreseeable future, well into the next century, because of the restructuring of the economy -- particularly if investments in energy efficiency and conservation are pursued. On overall cost grounds, the plant will end up being devoted substantially to export of electricity to countries which have all halted their own nuclear programs (Austria, Italy, Switzerland). Already more than 15% of the output has been contracted for export, and we understand that aggressive marketing efforts are planned to export much of the power.

We believe that there is a high likelihood of cost overruns. Westinghouse has a history of nuclear cost overruns both in the US and abroad. Westinghouse built 52 NPPs in the US, which on average were 420 percent over the signed contract price and five years late. Currently, there are no orders for nor any construction of Westinghouse NPPs in the US.

The Czech Republic has no solution for the problem of longer term high-level radioactive waste, and does not even have a currently operating off-site short-term facility for handling any type of waste. Previously, waste was shipped to Slovakia or Russia, but this is no longer feasible.

C. Liability

There remains a significant concern about potential lender liability. Although the Czech Republic has recently signed the Vienna and Paris Conventions on Third Party Liability for Nuclear Damage, that covers only transboundary liability.

In the event of an accident, the Czech government or individual Czech people could sue those responsible for the construction of the plant, which could include the US ExIm Bank. Likewise, if citizens of Austria were injured, they could sue in the U.S.

Note that billions of dollars of potential claims have recently been deposited against Westinghouse by Austrian citizens and local municipalities against that risk, including the City of Vienna. At least 100,000 Austrians are involved in this novel protest, which could lead to Westinghouse shareholders raising questions about the project, and to Westinghouse having to set aside reserves for the contingent liability. GLOBAL2000, an Austrian NGO, has presented to U.S. Embassy officials a copy of the Advance Damage Claim Form against Westinghouse. The campaign was initiated originally because the Czech Republic had not signed the international nuclear conventions that determine responsibility in the event of an accident.

Westinghouse continues to assert that it would take no responsibility for the safety of the plant, even though it is building the safety systems.

D. No Comprehensive Environmental Impact Assessment

Although there are references in various materials to some sort of environmental impact analysis having been done, if it exists it certainly has not been made public or subjected to public comment and scrutiny in the Czech Republic or elsewhere. Clearly no EIS that comports either with current U.S. or Czech standards has been done either for the original plant design or for the upgrade. Even the NSC Review admits this. This is the subject of Representative

Frank's letter to Ken Brody dated November 8, 1993, with which we fully concur, and also has been referred to by Senator Leahy is his correspondence with the ExIm Bank.

The ExIm Bank has submitted a 12-page Environmental Evaluation to Congress, dated January 26, 1994. The Technical Memorandum prepared by the advisors to the Austrian delegation addresses the many inadequacies of that Environmental Evaluation.

Temelin continues to be strongly opposed locally; 58 of 65 towns and villages in the area (many filled with Temelin workers) have asked the government not to build the plant. There has been no public participation in the decision-making process, no vote in parliament, no public hearings, and as noted above, no public EIA process. Several thousand Czechs nationwide have signed a petition demanding an EIA for Temelin. It is therefore ironic for the NSC to have cited the fact that a democratically elected Czech Government wants to pursue the project, when democratic procedures have not been followed.

The Czech Free Democrats, led by former Foreign Minister Jiri Dienstbier, have raised their voices against completion of Temelin.

In Austria, all five parliamentary parties are strongly opposed to Temelin.

Some people say that since the Czech Republic now has a democratically elected government, whatever it wants should be dispositive. In this case, however, we have a fledgling democracy that is in a transition phase, and many democratic procedures have not been set up or implemented. The old energy bureaucracy remains largely ensconced, and is still wedded to the old approaches. This project was "inherited" by the new government, which has candidly stated that it would not have initiated it. Under these circumstances, and given the very serious technical and safety problems revealed by the Technical Memorandum, Congress should not be uncomfortable with deciding to state its opposition to U.S. taxpayers being asked to support the project. There are plenty of good things the taxpayers will wholeheartedly support.

If the ExIm Bank had followed proper environmental assessment procedures in this case, with a full opportunity for public comment on the project, on its risks to the environment and human health, and on the alternatives, we strongly doubt that we all would be in this position today.

E. Involvement of the World Bank, EIB and EBRD

It is worth noting that the World Bank, European Investment Bank and EBRD all were asked to consider lending for this project and all refused. While these decisions may not all have been "formal" rejections, there is no doubt that they have refused to

fund the project. We understand that the Czech Government's own records admit these rejections. The World Bank and EBRD both provided detailed reports to the Czech Government about other "least-cost" options that would be better economically and environmentally.

We strongly encourage Congress to review those alternatives:

(1) The best investment in the energy sector in the Czech Republic (and the rest of Central and Eastern Europe) is in energy efficiency technologies. The Czech Republic consumes twice the energy per unit output as the OECD countries. Energy conservation costs (per watt saved) are approximately one tenth the per watt costs of building new capacity. We have provided some detailed illustrative figures in "Russian Roulette" -- particularly the chapters on alternatives.

(2) The World Bank estimates that simple energy conservation measures can reduce Czech domestic electricity demand by 20 to 30%. SEVEn (an independent Czech energy efficiency think tank, funded by Batelle and the US EPA) has evaluated the energy savings associated with 4 sectors of the Czech Republic (switching to fluorescent lighting, improving industrial electrical motors, improvements to the technology used for melting metals and household appliances). These changes in total could reduce electricity consumption by 52% of the total national installed capacity of 12,000 MW. This SEVEn program savings represents 3.4 times the total installed capacity of the Temelin plant (2,000 MW).

(3) Additionally, there are numerous small scale, decentralized energy generating capacities available in the region. From co-generation on the conventional side (approximately 2000 MW available at current heating plants), to small scale hydroelectric on the renewables side. Before WWII, 400 MW of micro-hydro capacity existed. Although this was abandoned by the communists, the rivers are still flowing and new technologies could double this capacity to 800 MW - almost half the installed capacity of Temelin. All of these substitute methods are safer, cheaper and faster to build than additional nuclear capacity, even when the costs already sunk into the plant are considered.

F. Conclusion

Supporting this loan is inconsistent with what we understand to be the Clinton Administration's policy of "no new civilian nuclear power stations". This policy, which we strongly support, is based on a multiplicity of factors, including the true, full costs of nuclear power such as decommissioning and disposal of the spent fuel, the risks to the public and the environment, and consideration of alternatives. Why should the U.S. be promoting this technology abroad?

If the U.S. ExIm Bank doesn't guarantee the loan by Citibank, there is no evidence to support the assertion that the German government will guarantee a loan for Siemens to do the upgrade.

We call on Congress to take the necessary steps to formally announce its opposition to this project. Ultimately, it may be necessary for the full Congress to vote on the matter, or to withhold funding for the ExIm Bank. Even though a vote in the Banking Committee may not, in strict legal terms, overturn the ExIm decision, there is no doubt that such a vote will send a powerful signal to the Administration that it will most likely not ignore.

REPLIES TO QUESTIONS OF REPS. MICHAEL HUFFINGTON AND DOUGLAS BEREUTER, HEARING ON H.R. 2096 IN THE SUBCOMMITTEE ON INTERNATIONAL DEVELOPMENT, FINANCE, TRADE AND MONETARY POLICY ON MARCH 15, 1994

Submitted by Rep. Michael Huffington

Question: Could the Temelin nuclear plant planned for construction in the Czech Republic receive the necessary permits and be built in the United States?

Answer: It is not within the mandate or authority of Eximbank to determine the licensability of a nuclear power plant in the United States. The Bank's position, as stated in the Environmental Evaluation which accompanied the Congressional Notification letter dated January 27, 1994, is that "In the staff's judgment, actions committed to by the Czech authorities will allow Temelin to attain a level of safety comparable to that required of a nuclear power plant in the United States."

Submitted by Rep. Doug Bereuter

Question: Mr. Brody referred in the hearing to the fact that Eximbank is planning to have a "small business entry point" as Mr. Bryen was suggesting. What exactly is that entry point for small business?

Answer: Eximbank is being reorganized. The goal in this reorganization is a structure that will cause all divisions of the Bank to work together as a flexible and responsive unit that can help U.S. exporters meet stiff competition in a changed global trade environment.

The Bank is being divided into three areas: Business Development, Export Finance, and Resource Support. The Business Development Group will be the "Small Business entry point."

The Business Development Group is responsible for all outreach, intake and counseling services to widen and deepen penetration by the Bank's programs among exporters and potential exporters, especially small- and medium-sized business.

In addition to outreach, training and market development functions, the Business Development Group is the interface with potential and early-stage customers, providing them with information on Exim programs and procedures, helping solve their problems, and generally walking them through the pre-application phases of doing business with the Bank.

The Czech Ambassador
3900 Spring of Freedom St., N.W.
Washington, D.C. 20008

By Hand

Washington, March 3

The Honorable
Alfred A. McCandless
U.S. House of Representatives
2422 Rayburn House Office Building
Washington, D.C.

Dear Congressman McCandless,

In the course of, and in connection with, a recent hearing of the House Subcommittee on International Development, Finance, Trade and Monetary Policy, regarding the environmental policies of the U.S. Export-Import Bank, some questions have been raised about the proposed loan-guarantees of the U.S. Export-Import Bank for the Temelín Nuclear Power Plant project in the Czech Republic, with respect to the safety, public support for, and economic viability of the project.

Although it may sound self-evident, I deem it necessary under these circumstances to emphasize that the safety of the Temelín project can be of no greater concern to anyone than to the democratically elected government of the Czech Republic which is reponsible to its citizens and to the international community for the safe operation of the plant. This was the first and foremost consideration in the deliberations of the government on the project. It was precisely because of this concern that the original project was modified to accomodate Westinghouse nuclear fuel, instrumentation and control technology as the best way to increase the safety margin. The same concern

has led the government and the utility to commission a number of studies which have convincingly proven that the project can operate under the same strict standards of safety and environmental protection that are customary elsewhere in Europe and in the United States. Furthermore, the Czech Parliament has demonstrated the awareness of our responsibility by adopting the Vienna Convention on Civil Liabilities for Nuclear Damages.

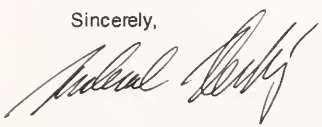
Many of the questions raised about the project have been based on insufficient information or misunderstandings. The enclosed position paper clarifies most of these issues, including the question of the public support for the project.

As for the economic viability of the project as a least-cost option, this has been thoroughly examined by the government and confirmed on the basis of independent analyses. This fact is also corroborated in the position paper. While this consideration is certainly of much importance to the Czech Government and also of importance to the underwriters of the project, including the U.S. Export-Import Bank- and hence the Congress and the Administration -, it is hard to see of what concern it could possibly be to third parties, let alone third governments. While I can understand genuine concern for the environment, the other arguments by third parties or governments, in my view, go beyond acceptable limits. Nor is it correct to say that with the Temelín loan, the Czech Republic has had to turn down two World Bank loans that would reduce dangerous emissions from existing power plants. There is no causal link between these two issues. In fact, our preferred course of action is to close at least some of the existing power plants down rather than trying to reduce their emissions at high cost, because the mining of lignite for these plants is in itself a source of considerable pollution and its burning a source of doses of radioactivity much higher than any linked to the standard operation of a nuclear power plant. The completion of Temelín will enable us to do just that.

The Czech Government and other bodies have done their best to provide the necessary data and answer all legitimate questions on the subject. Please, accept the position paper as the final proof of our determination to stand up to all the obligations and responsibilities associated with the project. I hope that the project can now go ahead without further delays and to the benefit of both our countries.

With best regards,

Sincerely,



Embassy of the Czech Republic
3900 Spring of Freedom St, N. W.
Washington, D. C. 20008

POSITION PAPER

ON THE TEMELIN NUCLEAR POWER PLANT

Prepared by:

Jiří MAREK, Advisor to the Minister of Industry and Trade of the Czech Republic and Chairman of the Supervisory Board of the ČEZ Joint Stock Co. (Czech Power Company)

With the contribution of:

Břetislav HORÁK, Karel KŘÍŽEK and Josef VÍTA, experts from ČEZ.

Washington, D.C., March 3, 1994.

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INTRODUCTION

The Czech Republic as a part of former Czechoslovakia decided to rejoin Western industrial democracies more than four years ago after the "Velvet Revolution" in November 1989. In the course of these four years the Czech people exerted a tremendous effort of unprecedented nature -- to radically and irreversibly change both the political and the economic structure of the society. This change was accomplished against the background of political stability and social peace. The dissolution of former Czechoslovakia (sometimes called the "Velvet Divorce") serves as further evidence that our people can undertake even such a painful and difficult task in an orderly, lawful and non-violent way. By the end of 1993 most steps connected with the radical transformation of our society and economy were accomplished. The Czech Republic today is a parliamentarian pluralistic democracy and a country with all basic systemic elements of a market economy. Since we share the same values as our Western partners, the Czech Republic has expressed its interest in joining the N.A.T.O., the European Union and the O.E.C.D.

The path towards achieving the level of development common to the O.E.C.D. countries is not an easy one. One of the many problems with overcoming the heritage of the Communist system and centrally planned economy is the fate of huge investment projects. The problems we are facing are manifold and they involve issues of economic, social, environmental and strategic importance.

The construction of Temelin Nuclear Power Plant ("Temelin NPP") is perhaps the best known and most complex project of this kind. Temelin is located in South Bohemia, approximately 60 miles south of the Czech capital Prague. The construction permit for Temelin NPP was issued in 1986; the work on the site started in 1987.

Due to the political and economic transformation in the Czech Republic after the 1989 revolution, the Temelin project has been very thoroughly reexamined. A decision was taken to reduce the number of the previously planned four units Russian type VVER-1000 MW units and to construct only two units and to substantially upgrade and improve the design and operational safety of Temelin NPP. **As a result of the recommendations of many audits, review missions and investigations -- carried out during 1991 and 1992 by the International Atomic Energy Agency (IAEA), Vienna, and Halliburton NUS, Gaithersburg, Maryland, and many others -- a decision was made to implement many substantial technological improvements to make the plant licensable not only in accordance with Czech standards and regulations but also in general accordance with Western standards and regulations expected to be in effect in the mid-1990s.**

As regards the most relevant technological changes, tenders were opened for both Temelin NPP nuclear fuel supply and the instrumentation and control (I&C) system. As a result of these tenders, the Westinghouse Electric Corporation, Pittsburgh, Pennsylvania, was invited

to submit contract proposals. Following extensive negotiations, Westinghouse, in May 1993, signed a contract with ČEZ, the largest Czech power company.

As a result of privatization, ČEZ has been transformed into a joint stock company, where the Czech State at present retains the ownership of 67% of the shares.

ČEZ is responsible for at least 80% of the electricity production in the Czech Republic. Currently, electricity is generated mostly by lignite burning power plants (75% of ČEZ electricity production). The rest of ČEZ electricity is supplied by the first Czech NPP at Dukovany. Some of the coal burning power plants are obsolete and incapable of being economically retrofitted, and the whole process of lignite strip mining and combustion has produced serious environmental problems -- air and water pollution and soil degradation. The so called "Black Triangle" between the region of Northern Bohemia in the Czech Republic and neighboring areas in Poland and in the former G.D.R. are among the most polluted places not only in Europe but in the world. The high levels of pollution pose a serious problem for both the environment and human health.

It is also necessary to stress the crucial importance of the Temelin project from the perspective of the energy policy of the Czech Republic. Due to the composition of the Czech natural resources, coal -- especially the lignite -- and uranium are the only domestic energy sources fit for electricity production. The Czech Republic still depends heavily on foreign natural gas and oil supplies, currently obtained almost exclusively from the Russian Federation. Large energy dependence on foreign sources represents a certain degree of external vulnerability for the Czech Republic. Independence in electricity supply is thus a matter of national strategic importance.

The completion of Temelin NPP is without doubt the only viable energy option -- both economically and environmentally -- for meeting the Czech electricity demand at the turn of this century and beyond.

At present almost 90% of civil work and 60% of technological and engineering work at Temelin NPP construction site have been completed. The Westinghouse supplies of the I&C system and the nuclear fuel are necessary to complete the facility and to connect both units to the grid within the period of 1996 to 1998.

The financing of the Westinghouse supplies through commercial bank loans -- guaranteed by the EXIMBANK -- has been determined to be the best financial option for the completion of Temelin NPP. This issue was raised at the meeting between President Havel and President Clinton in April of 1993. The Czech Government provided its own guarantees for Temelin financing and it welcomed the additional support provided by the EXIMBANK. ČEZ took the tentative approval of EXIMBANK on January 27, 1994 as further evidence of this support. Between January 28 and March 4, 1994, the U.S. Congress has been reviewing the EXIMBANK action.

The Czech Republic is convinced that the completion of Temelin NPP in cooperation with Westinghouse is a desirable and viable bilateral project, bringing state-of-the-art American technology to Central Europe. Both parties benefit from this cooperation -- better technology leads to a better and safe Project.

The process of the U.S. Congressional review has been closely watched by some media and also by the opponents of nuclear power in general and of Temelin NPP in particular. During this review the Government of the Republic of Austria dispatched a special delegation to Washington to protest against the approval of the loan guarantees by EXIMBANK. **The Czech Republic has conducted bilateral dialogue with the Republic of Austria on this issue on a continuous basis at all levels, including Heads of State and Heads of Government, and intends to do so also in the future. Our capitals -- Vienna and Prague -- are the most suitable places for such a bilateral dialogue.**

This document confirms the position of the Czech Republic towards nuclear power as an integral and essential part of our electricity production and concentrates on those issues that in our view deserve attention at this point of time.

1. PUBLIC AND GOVERNMENTAL ACCEPTANCE OF NUCLEAR ENERGY IN THE CZECH REPUBLIC

The Government of the Czech Republic approved by its Resolution No.109 of March 1993 the activity of ČEZ to complete two units of Temelin NPP. The decision was taken as a follow-up of the "Energy Policy of the Czech Republic", adopted in February 1992 by the previous Czech Government of Prime Minister Pithart, where the completion of Temelin NPP was confirmed. The March 1993 decision was a result of a two-month-long discussion of Czech Ministers, during which all necessary aspects of the Project were evaluated, including public acceptance, operational safety, environmental aspects of electricity generation in the Czech Republic and economical efficiency of the Project. By its Resolution No. 606 of October 1993, the Czech Government gave its guarantees for the EXIMBANK-guaranteed commercial bank loans for the Westinghouse supplies of the I&C system and nuclear fuel for Temelin NPP.

The Czech Government strictly observed the relevant legal procedures. The Government approval of March 1993 represents only an approval of the decision of ČEZ as a private company to complete the nuclear power plant. The Government approval is not a substitute for the issuance of any required permit (for which the Government is not authorized). The necessary permits have been issued by the appropriate local authorities in accordance with the law. **While the Czech Government was discussing the issue of completion of Temelin, a wide and open public debate was going on concerning this subject. This debate was conducted both in the media (press, TV roundtables) and among the citizens and their political organizations and other interested groups. The issue of completing Temelin NPP has also been discussed in detail in the presence of key Cabinet Members at a special**

seminar in the Czech Parliament -- a meeting open to Deputies from all political parties as well as to the public.

Notwithstanding the openly expressed opposition from anti-nuclear groups and some environmentalists, the public support for Temelin NPP completion is very high. **As a result of an opinion poll, conducted in March 1993 (i.e at the time of the Government decision) by an independent agency (AISA), over 80% of the Czech population nationwide supported the completion of the Project.** Even in the region of South Bohemia (1 million inhabitants), where Temelin is located, 65% of the population supported the completion of Temelin. The original resistance came -- not surprisingly -- mostly from the local communities. Their approach to the Project is at present more moderate -- ČEZ established a mechanism for regular contacts with the local communities, especially with the "People's Commission" (27 members) and with the "Association of Cities and Towns of the Temelin Region" (SMOR). There are at present 84 towns represented in SMOR. The meetings of mayors and other representatives with ČEZ continue, and written answers by CEZ to their questions are being evaluated by the SMOR-selected experts. At these meetings a variety of issues concerning nuclear safety, environmental impact, and regional development have been discussed. The latest meeting took place on February 4, 1994.

We believe that the above mentioned procedures respect the spirit of the requirements stipulated by the new Czech environmental impact assessment Law No. 244/1992. There are, however, serious reasons why it is unacceptable to recognize retroactive validity of a law in the Czech legal system.

2. SAFETY AND ENVIRONMENTAL ASPECTS OF TEMELIN NPP

The safety of Temelin NPP will be comparable to the current Western nuclear plants. The Czech Government and ČEZ commissioned several independent reviews and audits and using their results, created an extensive upgrading program to further enhance the design and safe operation of the Plant.

ČEZ initiated several major design changes, implementing state-of-the-art U.S. technology, and expanded the scope of the safety analysis so that it is comparable to the scope of safety analysis required by U.S. law. ČEZ also reorganized project management following the recommendations contained in the reviews.

The original safety design criteria for Temelin were defined in Soviet document OPB 82, "General Safety Regulations of Nuclear Power Plants During Design, Construction and Operation". The current Temelin design goes well beyond satisfying the OPB 82 Soviet design criteria. The plant's design takes into consideration not only plant design and operational requirements, but also postulated severe external events and man-made threats.

Temelin NPP has implemented or is implementing, a significant number of modifications from the original Soviet design that will bring it into conformity with general Western design criteria. For example, Temelin NPP is committed to institute the safety-enhancement modifications developed by the U.S. NRC after the Three Mile Island accident. Likewise, a new instrumentation and control system, nuclear fuel, radiation monitoring system, equipment diagnostic system, and symptom-oriented emergency procedures are being provided that will meet applicable Western safety requirements.

Upgrading and transfer of advanced technology during construction and operation is an ongoing process. That occurs on nuclear projects around the world. Russian reactors, particularly the Lovissa NPP, operated successfully for decades, and were upgraded in Finland (West European I&C), Slovakia (West European I&C), and Hungary (the bid invitation specifications are being prepared for many improvements). ČEZ follows current world practices to upgrade existing nuclear power plants using suppliers selected on commercial basis and meeting specified technical and nuclear safety requirements. Therefore, it is not unusual that upgrading is accomplished by an organization different from the original supplier. This practice can in no way be considered as an artificial grafting of one technology to another. **Also, it should be mentioned that Russian pressure water reactors (VVER) are based on technology which was first commercially introduced by Westinghouse and represents the largest portion of energy generated by nuclear facilities.**

To further enhance safety culture in the Temelin project, ČEZ voluntarily selected Halliburton NUS, a reputable independent company, to perform an audit of Temelin NPP in 1991. While the principal focus of the audit was on nuclear safety and licensability, it also included other technical and management aspects of the Temelin project. Wherever appropriate, the audit resulted in findings and recommendations intended to improve Plant design and construction and operation. Based on the findings and recommendations, the audit drafted a corrective Action Plan. With the audit team's assistance, the utility elaborated a detailed Action Plan for the implementation of audit results. The Plant general designer and the original Russian designer have participated in the Action Plan implementation. Many tasks in the Action Plan have been accomplished and the remaining ones are in process in accordance with the current Plant schedule. **The implementation of the Action Plan invalidates negative findings about the Temelin project made by previous reviews and audits (1990 IAEA Mission and all Halliburton NUS audits). All references to these findings -- which are now two years old - are thus no longer valid.**

Differences between Soviet VVER-1000 reactors and Western standards were repeatedly reviewed for the last time by an extra-budgetary IAEA program in 1993. **The findings and recommendations made by the IAEA program in 1993 are consistent with those of the Halliburton NUS audit.** Regarding Temelin NPP, the deficiencies identified earlier by IAEA missions and audit, were addressed by the Action Plan and the appropriate measures were taken. On the contractual bases the ČEZ is continuously receiving the technical information from Russia Atomenergoproekt. A group of Russian engineers works at the Temelin site, supervising

equipment installation, implementing design changes, and providing engineering support and design assistance. In addition, an agreement is being prepared at the governmental level on the nuclear cooperation with the Russian Federation which will create a framework for further close cooperation on improvements to the VVER-1000 plants. Russia is extremely interested in having access to the upgrades because of the need to improve their own nuclear power plants.

The licensing procedure in the Czech Republic is defined by the law. It is in many aspects similar to the procedure used in the U.S. In addition, the supplies by Westinghouse have to comply with the U.S. NRC requirements and standards (contractual commitment). The licensibility of Temelin NPP is enhanced by the modifications implemented and supported by Westinghouse safety analyses consistent with US NRC Reg. Guide 1.70. The existing Czech legislation contains most of the requirements common to nuclear legislation of Western countries.

Major components have been manufactured in the Czech Republic and in Western countries in compliance with quality assurance principles and standards. Compliance with the licensing requirements will be assessed by the appropriate regulatory body, with the cooperation of Western companies in the area of nuclear safety. The staff of the Czech nuclear regulatory body are being extensively trained by the U.S. NRC.

Starting in April 1993, systematic examination of Temelin NPP for severe accident vulnerabilities - Probabilistic Safety Assessment Study (PSA) - by a U.S. company has been an integral part of the Project and will be completed before the fuel loading into the first unit.

The evaluation of environmental impact is required by the Czech zoning and building law No. 50/1976. A preliminary environmental evaluation must be presented as part of the site license application. A full environmental report must be presented as part of the construction permit application. An environmental assessment within the scope of the preliminary safety report is required.

ČEZ elaborated the Temelin environmental impact evaluation study using U.S. Regulatory Guide 4.2 as a model. Topical reports prepared within the scope of the environmental study are listed in the Appendix. Each area was subject to the approval with appropriate licensing body and local government. Results and conclusions of the environmental study were included in the siting safety report submitted to the nuclear safety regulatory body (SUJB, formerly CSKAE) and as a part of the design documentation submitted to the local construction licensing authority.

The requirements of the new Czech Environmental Impact Assessment Law No. 244/1992 are not retroactively applicable to Temelin NPP since its construction started in 1987. The application of the mentioned Law could practically destroy the legal

environment in the Czech Republic by introducing principle of retroactivity with an unpredictable impact on economic reforms and thus setting a dangerous precedent.

As a problem of serious importance, the ultimate disposal of the radioctive waste is being solved within the Czech nuclear program. The solution does not differ from that employed by the U.S., Sweden, Spain and other countries with highly developed nuclear energy programs. **Spent nuclear fuel is safely stored for the period of 50 years in an interim spent fuel storage facility and then ultimately disposed of into a deep underground repository.** The period of 50 years is sufficient for the selection of the best site for the repository, with the best available technology and engineering barriers.

The interim spent fuel storage facility will be needed approximately in the year 2005, when the Temelin spent fuel has to be transferred from the Temelin storage pool into the central interim storage facility (MRS). The site selection procedure was started last year and the construction of this facility for the Temelin fuel will be started in the year 2000. As is the standard practice in the West, a portion of the operating costs of the plant will go into a special fund to cover the costs of the radioactive waste management.

3. ECONOMIC VIABILITY OF THE TEMELIN PROJECT

Wide discussion has taken place in the Czech Republic about the economic efficiency of the overall Czech electricity supply. **Due to the newly imposed strict limits for off-gases releases into the atmosphere (as stipulated in the Law No.309/1991), the oldest lignite burning plants with the total output over 2000 MW will have to be shut down by the end of 1998. The rest of the power plants (over 7000 MW) will -- by the same year -- have to install flue-gas-desulphurization technology or have to be retrofitted by fluidized bed combustion technology.** A wide program of electricity savings is already being implemented. A successful implementation of energy-saving measures will result in a decrease of the demand for electricity at the end of the 1990s, but not to a level which would make building a new power plant unnecessary. This conclusion has been confirmed by the analysis of a variety of plausible scenarios. The most probable scenario predicts that the electricity consumption in the year 2000 will be the equal to that experienced in 1990.

Evidence that the completion of Temelin NPP represents the best economic option was substantiated by a study conducted by the independent Belgian company, TRACTEBEL, and funded from the PHARE program of the EU. It is important to emphasize two of the many findings of this study:

- The completion of Temelin NPP has been evaluated as a cost-efficient option as compared to all other alternatives, including gas-combined cycle, etc;

- The electricity savings program based on the Demand Side Management method can save almost 1200 MW by the year 2010 -- a realistic estimate for the "high scenario" of electricity demand -- or save 720 MW according to the "most probable" scenario. By the end of the 1990s, the potential electricity savings are not expected to exceed 400 MW.

The "gas conversion" option, widely promoted by the opponents of Temelin NPP, has a number of flaws:

- energy dependence of the plant on natural gas supplies from the Russian Federation, thus resulting in an increased level of the overall dependence of the Czech economy on that single source;

- technological impossibility of utilizing most of the currently installed and completed equipment and structures of the Plant; and,

- enormous operational expenses and unpredictable investment costs. In the case of Austrian Zwentendorf NPP (constructed but never connected to the grid), the owner, G.K.T. Ltd., unanimously decided in November 1993 to cancel the previously envisaged conversion of this nuclear facility to a gas-fired power plant.

The claim that the Czech Government had to "abandon" its guarantees for a World Bank energy sector loan because it had to concentrate all its guarantees on Temelin NPP is unsubstantiated. The Czech Government has enough reserves in the state budget to accommodate both the Government guarantees for Temelin and guarantees for other loans if guarantees for such projects are considered indispensable. A thorough review involving the Government and the potential borrowers is presently being conducted to determine the necessity for Government guarantees for some possible loans, including the so called "Energy II". The Government guarantees for a cumulative debt service on the guaranteed loans for a given year should not exceed an equivalent of 8% of the expected budget receipts for that year. This law is being strictly observed. The Government guarantees for Temelin vary between 5% and 8% of the overall volume of the state budget allocated for Government guarantees.

CONCLUSION

*The Czech position on the completion of Temelin NPP is based on an in-depth technical, economic, and environmental analysis and reflects the results of lengthy discussions both at the Government and public levels. The Czech Republic provided all the necessary information to the EXIMBANK and hopes that both our views and documents will be taken into consideration in the final decision on the EXIMBANK guarantees for the Westinghouse exports. **The American involvement in the completion of Temelin NPP might represent a "flagship" of U.S.-Czech economic cooperation in general and in the nuclear power field in particular. By bringing the***

necessary state-of-the-art technology to our country, this cooperation constitutes a further step towards improving the Czech Republic's technological capacity, creating an up-to-date power facility and conditions for a gradual improvement of our badly damaged environment. *The present level of political and economic transformation of the Czech society and the professional capability and maturity of our technicians give us the confidence that Temelin NPP can and will be successfully completed and safely operated.*

APPENDIX

LIST OF THE TOPICAL REPORTS ON THE TEMELIN ENVIRONMENTAL IMPACT

Regional and historical monument survey of Temelin NPP Territory.
SURPMO/1981

Urbanistic and regional assessment of villages Brezí, Temelinec.
VIDEOPRESS/1982,1983

Survey of historical monuments in the JETE vicinity.
VIDEOPRESS/1982,1983

Archeological survey of Temelin NPP site.
AÚ ČSAV/1981-1986

Natural historical survey of Temelin NPP sits.
VIDEOPRESS/1982,1983

Analysis of Temelin NPP impact on the environment, the population radiation exposure implications.
EGP/1980

Climatic consequences of Temelin NPP cooling towers.
HMU Bratislava/1981-1983

Influence of Temelin NPP on the environment, social and sociological implications.
DRUPOS/1981

Temelin NPP - survey of the contaminants spread in ground water.
VUV/1983

Influence of Temelin NPP on the environment.
UR VJT Kosice/1983

Temelin NPP - impact of the activity on the forestall vegetation.
VULHM/1982

Temelin NPP - impact of an increased humidity on the forestall vegetation.
VULHM/1984

Temelin NPP - the radwastes spread with surface and ground water.
MFF UK/1983

Temelin NPP - the acoustic study.
EGP/1984

Prognosis of the Vltava biological regime development due to Temelin related warming.
PrF UK/1986

Temelin NPP influence on the Vltava river water quality.
VUV/1982

Evaluation of the interaction between stacks and cooling towers plumes in nuclear facilities.
KRB/1986

APPENDIX

Temelin NPP - impact of low-activity effluent.

EGP/1991

Research of Temelin NPP influence on the atmosphere and waters.

VUV/1992

Research of the main processes and factors influencing the quality of water, bottom sediment and aquatics, focused on the change of water quality in the Orlik lake due to Temelin NPP liquid effluent.

VUV/1992

Research of the Vltava river cascade's thermal regime.

VUV/1992

Connections between Temelin NPP site and South Bohemia basins in view of ground water uses.

VUV/1992

Implications of Temelin NPP operation for the forestall ecosystems and their ecological effect.

VLHM Strnady/1992

Impact of the spent fuel interim storage facility on the environment.

UKE CSAV/1991-1992

Expert opinion on the spent fuel interim storage facility at the NPP Dukovany as required by §9 of the Act No. 244/1992 Code on environmental impacts.

UJV Rez/1992

Expert opinion on the influence of Temelin NPP operation for the alternatives of Vltava water treatment.

VUV/1993

TECHNICAL MEMORANDUM

REGARDING THE

TEMELIN NUCLEAR POWER PLANT

PREPARED BY THE
ADVISORS
ON THE
SPECIAL DELEGATION
OF THE
GOVERNMENT
OF

AUSTRIA

TO THE

UNITED STATES

WASHINGTON D.C. - FEBRUARY 1994

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TECHNICAL MEMORANDUM
ON THE
TEMELIN NUCLEAR POWER PLANT

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February 22, 1994

INTRODUCTION

We are technical advisors on the Special Delegation sent by the Austrian Government to the United States regarding the proposed completion of the Temelin nuclear power plant in the Czech Republic. We have prepared this report to present our views regarding safety and environmental impacts of the proposed Temelin nuclear reactors.

The Czech government now plans to complete construction of the Temelin Nuclear Power Plant - which was initiated by the former Communist regime - with the help of U.S technology, equipment, and financing. The facility, which is less than 40 miles from the Austrian border, consists of 2 partially-constructed Russian-designed VVER 1000 pressurized water reactors.

In May 1993, the owner of the power plants, Czech Electric Utility ("CEZ"), contracted with Westinghouse Electric Corp. to supply (1) instrumentation and control equipment and services, and (2) advanced-design nuclear fuel, to complete and start up both Temelin units. A Citibank consortium agreed to issue a $400 million loan for the project.

On January 27, 1994, the U.S. Export-Import Bank ("Ex-Im Bank") notified the U.S. Congress of its tentative approval of a $317 million loan guarantee for the Temelin project. Ex-Im Bank submitted in support its 12-page Environmental Evaluation ("ExIm EE")[1] and a Memorandum from the National Security Council and accompanying 10-page "Technical Analysis" on safety and environmental issues to the Ex-Im Bank, dated September 29, 1993 ("NSC Memo").[2] The U.S. Congress has a 35-calendar-day period to review this Ex-Im Bank action.

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[1]Export-Import Bank of the United States, Engineering Division, Environmental Evaluation, Temelin Nuclear Power Station (January 26, 1994).

[2]National Security Council, Memorandum for Mr. Kenneth Brody, President and Chairman, Export-Import Bank (September 29, 1993).

As a team, we have over 50 years of experience working on nuclear safety, energy policy and environmental issues. Four of us serve as members of the Federal Chancellor's Nuclear Advisory Council. Also contributing to this study is a legal expert who has represented two Austrian states in extensive discussions with Czech officials regarding nuclear matters. We have been involved in technical exchanges with our counterparts in the Czech Republic and have studied the safety of operating and planned nuclear facilities in the Czech and former Czecho-Slovak Republic and other neighboring countries.[3] We are also involved in cooperative research on energy efficiency policy in the Czech Republic.[4]

Before leaving for the United States, we reviewed as much documentation and information as we could assemble from Czech, Austrian, and other sources regarding Temelin. We were able to gain access to parts of two of the key technical studies by Halliburton NUS and Tractebel which are relied upon in the U.S. Government's consideration and review of the proposed exports as reflected in the Ex-Im EE and the NSC Memo.

In the first instance, we, as experts, remain very skeptical regarding all the assurances about Temelin's safety, benign or even positive environmental impacts, and solid economics. The reason is that relatively little information on these questions is publicly available. Moreover. the material we have reviewed, including the studies noted above, provide strong evidence of very significant hazards posed by the proposed facility.

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[3] Evaluation of the Safety of NPP Jaslovske Bohunice V-1, Sponsored by the Austrian Chancellory, Vienna 1991, (updated edition in print, Springer Publishing Co., Vienna - New York); International Commission for Independent Safety Analysis of the Nuclear Power Plant Krsko (ICISA), Ljubljana, November, 1993; Study on the Safety of the Dry Cask Interim Spent Fuel Facility at NPP Dukovany, The Academic Senate's Project on Nuclear Safety of the University of Vienna, Sponsored by the Austrian Chancellory, Vienna 1994.

[4] M. Muehlberger, Opportunities to Improve Energy Efficiency in the Czech Republic, UN-ENERGY/SEM.12/R.28, March 23, 1993; B. Vallance, Evaluation of the Energy Efficiency of the Czech and Slovak Iron and Steel Industries, UN-ENERGY/SEM.12/R.17, March 23, 1993.

In this memorandum, we briefly describe the reasons for Austrian concerns about this reactor just across our border. We describe the lack of normal open procedures for technical and public review of such a project. We describe Austria's bilateral cooperation on energy with the former Czecho-Slovak and the Czech Republic. We review the serious safety and feasibility issues associated with this novel attempt to graft U.S. technology onto Soviet-designed, partially-completed reactors. Finally, we outline the less costly alternatives available to meet energy needs.

AUSTRIA'S INTEREST IN TEMELIN

While Temelin is located in another country, its potential hazards to the people and land of both the Czech Republic and Austria are very similar, if not equal. The reactors are both 60 miles from Prague and from Linz, Austria's third largest city. Vienna is 120 miles southeast down the prevailing winds from Temelin.

An accident at Temelin could result in devastating health, environmental, economic, and social consequences for all of Austria's almost eight million citizens. The Chernobyl experience has shown that nuclear hazards do not respect national borders. Although Chernobyl is some 700 miles away from Austria, the 1986 accident led to radioactive fallout in large regions of our country at levels higher than most other countries in Western Europe.[5]

BACKGROUND AND STATUS OF TEMELIN

In the 1970s, the Communist Government of Czechoslovakia made a decision to build a nuclear plant at Temelin. In 1982, a number of governmental ministries participated in an environmental study of the suitability of the site. The Czechoslovak Atomic Energy

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[5]Report on the 1986 Chernobyl Nuclear Power Plant Accident and its Radiological Impact on Austria, Federal Ministry of Health (Vienna, 1987).

Commission ("CzAEC") issued a construction permit in 1986, licensed according to the 1982 Soviet regulations.

Work began that year on the first of four planned units. Construction of Units 3 and 4 was suspended in 1990. As of Fall 1993, it was reported that Temelin Unit 1 is 65 % complete and Unit 2 is 45 %.[6] According to CEZ, the level of completion was, as of spring 1993, 96% and 80% for structures, respectively, and 60% and 30% for technology components, respectively.

Unlike the United States where President Clinton is both Head of State and Head of Government, President Vaclav Havel is only the Head of State of the Czech Republic. It is the Heads of the post-Communist Federal and Republic Governments which have the responsibility for decisions regarding nuclear power.

The first post-Communist Czech government of Premier Petr Pithart considered the Temelin issue in early 1992. According to Pithart, there was not enough reliable information to support a decision, particularly in regard to costs, need for power, and safety. The Pithart government urged the incoming Klaus government to make a thorough investigation of all relevant facts before deciding on Temelin's fate.[7] **Premier Pithart is critical of the Klaus Government, which "made it clear from the very beginning that its position [in favor of Temelin] was already fixed, thus it de facto refused public debate."[8]**

There is strong local opposition against the Temelin project. **Fifty-four of 60 city councils in the Temelin area, representing 76,850 inhabitants, have passed resolutions against**

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[6]36 Nuclear News 45 (No. 11, September 1993).

[7]Letter from Dr. Petr Pithart, former Prime Minister of the Czech Republic, to Kenneth Brody, President and Chairman, Ex-Im Bank, 1 (January 25, 1994).

[8]Id.

completing the nuclear power plant.[9] They have asked the Czech government to prepare an environmental impact statement with public participation.[10]

The Klaus Government decision was made in the absence of technical and public procedures used to assure the soundness of decisions regarding nuclear projects. There has not been an environmental impact statement prepared on Temelin; nor has there been any independent public technical review of the safety and economics of the plant. The Czech government has not officially released any of the primary technical information underlying their decision.

AUSTRIAN-CZECH COOPERATION ON ENERGY

For several years, Austria has been actively engaged in a dialogue with Czecho-Slovakia and its successor states, the Czech Republic and the Slovak Republic, on technical and economic energy matters. Nuclear power has been a focus of common interest.

Austria recognizes that the Czech Republic must rely for the time being on its existing nuclear plants to meet its current demands for electricity. Austria has sought to provide the Czech Republic with technical and other assistance. In 1991, after an in-depth safety study by Austrian and international experts,[11] the Austrian Government offered to supply Czechoslovakia with the electric power needed to permit the shutdown for safety upgrading of two operating reactors at Jaslovske Bohunice V-1. This offer had a value of about $300 million per year.

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[9]Letter of the Association of Cities and Communities in the Temelin Region to Mr. K. Dyba, Czech Minister of the Economy, 1 (March 1, 1993).

[10]Id.

[11] See footnote 3.

Since 1992, Austria has been supporting a series of joint efforts to develop alternatives to nuclear power. These continuing endeavors include upgrading fossil-fuel plants and district heating. Austria has been preparing a study with the Czecho-Slovak/Czech experts to identify options for energy efficiency and to develop an appropriate legal and policy frameworks.[12]

In 1992, then Premier Pithart asked the Austrian Chancellor to assist the Czech Republic in addressing the Temelin issue. In response, Austrian experts prepared a study of the conversion of Temelin to a gas-fired combined cycle power plant. Similar conversions of nuclear plants have been carried out at Midland and Zimmer in the United States. However, resulting bilateral top official and expert discussions did not reach agreement on conversion.[13] Austria has offered to fund further technical investigation of this option, but efforts to arrange additional bilateral expert meetings have not succeeded.

[12]M. Muehlberger, supra n. 4.

[13]Meetings in Prague, February 9, 1993, and in Vienna, March 29/30, 1993.

CONCERNS ABOUT THE SAFETY OF THE TEMELIN REACTORS

Based upon our review of available data about plans to add U.S. technology to the units Temelin, we have considerable doubts that the reactors can meet Western safety standards.

The Temelin reactors are based upon the flawed Soviet VVER-1000/320 reactor design. An April 1993 International Atomic Energy Agency (IAEA) report[14] identifies 16 areas where the VVER-1000 design standards and codes are deficient when compared to U.S. regulations and IAEA standards. These include:

(1) Severe Accidents;
(2) Common Mode Failure;
(3) Missile Protection;
(4) Fire Protection;
(5) Classification of Components;
(6) Reactor Core Design;
(7) Core Power Distribution and Xenon Oscillations;
(8) Heat Transfer to an Ultimate Heat Sink;
(9) Radiation-Induced Embrittlement of Pressure Vessel Steels;
(10) Containment Design Basis;
(11) Hydrogen Control;
(12) Instrumentation and Control;
(13) Overpressure Protection;
(14) Safety Analysis Report;
(15) Quality Assurance Program;
(16) Component Failures and Human Errors Data.

The proposed upgrade of Temelin will purportedly address a number of these issues with regard to the VVER-1000 design. However, it is not clear whether some of these safety concerns - particularly common mode failure causes such as fires, floods, and internal missiles - can be adequately addressed because critical structures have already been completed. Another critical upgrade problem involves the flaws in Temelin's existing steam

[14]IAEA-SC-071, WWER-1000/320 Generic Safety Issues Developed from Codes and Standards Comparison, Ch. Lin auth., SAS/NENS/IAEA (Vienna, April 1993).

generator headers. They do not meet U.S. or international safety standards and their upgrading would require extraordinary expense.

The Ex-Im Bank relied on an interagency technical review, coordinated by the National Security Council (see NSC Memo) "of the design of the VVER 1000 reactors"(Ex-Im EE, at 2). However, it appears that neither the U.S. Department of Energy nor Nuclear Regulatory Commission ("NRC") sought to perform a safety analysis of the specific design and plans for the Temelin project. In brief, the only systematic Temelin specific study relied on by the Ex-Im Bank appears to be that performed by NUS Halliburton ("NUS."). According to the NSC Memo, this report is "the only independent Western review of the licensability of VVER-1000 reactors." Attachment, p. 6) The Ex-Im EE (p.2) states that NUS "found Temelin to be fundamentally sound and in conformance with U.S. safety principles save for the Russian Instrumentation and control systems."

We have been unable to secure access to all of the NUS reports in spite of promises from Czech authorities. However, the NUS Progress Report we have obtained shows that their Audit Team found serious design questions.[15] Even more importantly, the NUS Progress Report found that there has been, and is, a lack of the basic information needed to understand the Soviet design. As NUS explains, if the information, and the experts needed to explain it, is not available, then it will remain impossible to understand the adequacy of the design, much less to correct safety flaws.

The NUS progress report surprisingly concludes that the plant is "licensable in the mid-1990s." (Report, p. 2). This conclusion further presumes that the "Audit Team's technical

[15] We have access to the "Progress Report on the Audit of the Temelin Nuclear Power Plant" (August 1992; Revised October 6, 1992). The introduction states (at 1):

"This Report 1) summarizes the results of the Audit of the Temelin Nuclear Power Plant conducted by the Halliburton NUS Environmental Corporation; 2) describes the subsequent major follow-up actions taken by Halliburton NUS on behalf of CEZ... and 3) presents Halliburton NUS major conclusions and recommendations based on the Audit results and the follow-up tasks."

and programmatic recommendations are implemented." NUS itself immediately proceeds to state that "implementation progress has been, and continues to be slow. It must be accelerated if the current plant schedule is to be maintained." Moreover, the remainder of the NUS report shows why the implementation of the changes will be difficult.

First, NUS Progress Reports identify a number of specific design difficulties. For example, "Temelin's reliance on a single containment sump located in an extension of containment is not consistent with Western practice. In addition, the design of the sump and associated piping exhibit several design weaknesses." (Report, p. A-4) These flaws could contribute to a failure of the emergency core cooling system under recognized accident scenarios.

Design flaws were also uncovered with respect to the Emergency Feedwater System. As stated by NUS,

> [t]he Audit Team could not reach a final conclusion as to the adequacy of the Emergency Feedwater (EFW) system, because all of the necessary design documentation was not available. However, the conceptual design of the system is consistent with Western standards and includes considerable strengths...However, there is no documented evidence that the system can withstand a single failure, and the system exhibits certain design weaknesses including the lack of diversity in the power supply, availability of flow instrumentation and isolation capability for only two out of four steam generators, and potentially inadequate tank capacity for plant cooldown." (Report, pg. A-13)

Such system specific concerns can only be rectified with access to complete and accurate data on the underlying design. However, NUS found that "there is inadequate amount of information from the original Soviet reactor supplier concerning the technical basis and underlying analyses of the plant design. Obtaining such information is considered to be an important factor in the successful economic completion of the plant and its future safe operation." (Report, pg. A2-A3) Ukraine is already experiencing severe problems in securing such information from Rosenergoatom and other Russian VVER-1000 equipment suppliers for its existing VVER-1000 reactors, which raises serious questions as to the data's future availability to CEZ.

The problems of melding Soviet construction processes with western standards -- coupled with the lack of necessary data -- are described by NUS with respect to implementation of needed modifications. As stated by NUS:

> **Implementation of the new fuel/core design and I & C replacement projects will require a major design integration effort, not only between these projects but with the remaining nuclear island and balance of the plant design. (Report, p. 5-3)**

NUS stated that this effort "would normally be assigned to the plant architect/engineer." However, as NUS noted, changes in the Soviet Union make it unlikely that the original designers can be relied on in this case. Similarly, NUS notes that

> Important concerns raised by the I&C replacement are the need to assure adequate cooperation of the original Soviet design organization .... The Audit Team was informed that in the past, the performance of the Soviets in responding to Temelin requests for technical information has not been good, either with respect to the timeliness of the responses or their technical content." (Report, p. A-15)

Under Western practice, nuclear plants are not permitted to operate until a comprehensive Probabilistic Safety Analysis (PSA) has been prepared, reviewed, and approved. Regarding existing Temelin VVER-1000 accident analyses, NUS reported that the "assumptions made in the analyses appear to be conservative, but the analytical tools used are generally outdated and in many instances would be considered in the West to be unsuitable for a thorough accident evaluation." (Report, p. A-4) In addition, the proposed blending of Western technology will require substantial new design work, leading either to a substantial delay in the startup of the reactors or unexpected design flaws which could not be corrected.

NUS apparently shares our concern about practices followed in the construction of the Temelin reactor during the Communist past. There may already be problems due to poor practices and quality assurance which could compromise the safety of the plant. NUS reported that:

> the Team frequently found...two factors adverse to safety that appear to remain from work practices under the previous Czechoslovakian economic system:
>
> - the widespread absence of a questioning attitude, especially below the senior management level, which tends to result in the acceptance without challenge of safety decisions or representations by other parties; and
>
> - the lack of aggressive management action to investigate and control conditions adverse to the company's [CEZ's] objectives." (Report, pg. A-2)

In the same vein, NUS found that the plant staff was mismatched to the needed functions, and that there was a lack of safety culture at the construction site.

NUS's findings with respect to construction practices in the more recent past present a picture of a plant organization which remains out-of-touch with the most basic nuclear management practices. While sound construction management is a cornerstone of successful and safe plant construction, the NUS report makes clear that the requisite standard is not being met at Temelin. NUS states expressly that

> CEZ-ETE lacks a strong on-site engineering organization to manage and control the overall design effort .... This is important on any technical project as complex as a nuclear power plant, but is especially important at Temelin....(Report, p. A-7)
>
> * * *
>
> CEZ headquarters is insufficiently involved in overseeing, monitoring and reviewing the progress of the project. An organized program of independent safety oversight, similar to those found in Western utilities, has not been established at Temelin. This should be done to promote the development of an appropriate safety culture. (Report, p. A-7)
>
> Without firm management action to address these project management issues, there is little assurance that the project can be effectively controlled. (Report, pp. A-7, A-8)

In the same vein, NUS concludes that "[e]xisting technical and financial oversight of the Temelin project is not adequate." (Report, p. 6).

Subsidiary inadequacies are identified by NUS in many areas of plant construction management. For example, NUS concludes that the Temelin quality assurance (QA) organization is woefully inadequate:

> **the QA procedures for the performance and inspection of construction work are inadequate to provide instruction on how the tasks should be performed, and there is no provision for analysis of deficiencies to determine their root causes and identify potential adverse quality trends. (Report, pg. 6)**

The failure to identify "root causes" means that when a problem arises only the symptoms of that problem – not its underlying cause – are being addressed. The same can be said of the failure to identify adverse "trends." Thus, there is no assurance that significant, detrimental conditions are being identified and corrected.

The NUS proposed remedy for this problem which is identified as a Priority A or "immediate" action matter is to:

> Accelerate the completion and implementation of Temelin QA programs with emphasis on self-audits. (Report, pg. C-1, Item No. 4)

With the plant half finished, it is long past the time when QA programs should have been adopted and implemented. Even more important, there is no assurance that work-to-date has met the requisite quality standards.

NUS determined in late 1992 that the plant lacked an adequate equipment qualification (or "EQ") program. In fact, as of that time the plant's EQ program was so deficient that Halliburton/NUS recommended the performance of a separate audit just to identify all of the problems. NUS stated:

> **the equipment program for Temelin does not meet Western standards. A number of potentially significant weaknesses were**

> **identified, but a detailed audit of the program would be needed to determine the extent of the deficiencies. (Report, p. A-6).**

While obviously significant, this finding takes on even greater importance when it is recalled that there is a considerable amount of Soviet-supplied equipment in the facility. As stated by NUS:

> Examples of the weakness found [in the EQ program] included a lack of definition of the environmental qualification program performed by the Soviets for the equipment they supplied, and the absence of any indication that age-related or potential accident-caused equipment degradation were adequately considered in the design and specification of equipment. (Report, p. A-7).

The NUS Report calls for the establishment of a "program for the environmental qualification of safety related equipment," (Report, p. C-2, Item No. 14). However, it is not clear whether -- and if so, how -- this program would be applied covering all accident conditions to be considered with the equipment which has already been supplied.

The findings made by NUS with respect to other subsidiary issues are no more assuring. Regarding a radwaste and radiation protection ALARA concept (As Low As Reasonably Achievable), NUS finds that a "formal ALARA program for system and plant design has not been instituted for any of Temelin's radwaste management systems: its absence is particularly noticeable in the liquid radwaste management systems." (Report, p. A-12).

It is far from certain whether the combination of Westinghouse and Czech built reactor components will work as planned. Westinghouse still has to do a great deal of engineering and analysis to attempt to adapt U.S. equipment and Soviet and Czech hardware to each other. These daunting problems of component interdependence may impair safety and lead to cost and schedule overruns.

The ExIm EE points to Finland's Loviisa Nuclear Power Station as a precedent for Temelin. (p. 6). Loviisa's 2 VVER 440s were upgraded with western I&C technology in the 1970s and

have run safely since then, according to the ExIm EE.[16] However, Loviisa involves a totally different situation from Temelin. At Loviisa, the western I&C was introduced in an extended design phase during the general redesign of these unique plants.[17] At Temelin, this task is to be carried out in an almost fully designed and partially completed plant. Finnish experts also evaluated the VVER 1000 design in 1977-1980, but recommended not to build such a plant in Finland.[18]

Aside from a specific "Hot-Test", there will be no comprehensive review whether the combination of Westinghouse and Czech built reactor components will work as planned. The Westinghouse software will set certain technical criteria the Czech reactor hardware has to meet in order for the combination to work. Even Ex-Im Bank concedes that Westinghouse still has to do a great deal of engineering and analysis to adapt U.S. equipment to the existing Czech hardware. These unresolved problems of component interdependence may impair safety and lead to cost and schedule overruns.

The actual costs of completing Temelin remain uncertain. It is well known that the actual costs of nuclear reactors more often than not exceed the initially estimated costs by hundreds of millions, even billions, of dollars.[19] The NUS Audit, as quoted above, makes plain that the likelihood that the plant will be completed within budget is extremely remote. According to CEZ, Temelin will cost $700 million to complete for a total of $2.3 billion for two

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[16]ExIm EE at 6

[17]Loviisa Nuclear Power Station - Pioneer in East-West Cooperation, IVO Consulting Engineering Ltd. (Helsinki, 1983).

[18]Id.

[19]Experience shows an average 420% overrun and 5 year delay in completion for the 52 nuclear plants built by Westinghouse in the US. The original plans for the Bataan NPP in the Philippines, also built by Westinghouse, priced the two reactors at $500 million. Construction costs on only one of the two reactors totalled $2.2 billion.

plants.[20] This figure appears to be too low since a single comparable plant in the West costs $6-7 billion.[21]

A German study estimated the cost to complete and upgrade to German standards the Stendal A VVER-1000 reactor (in the former East Germany) to be from $2.3 to 2.9 billion.[22] **In light of this experience, it appears that upgrading the Temelin reactor may cost $1 billion or more than estimated by CEZ. It is notable that Germany cancelled construction of VVER 1000s in the former German Democratic Republic after determining that safety enhancements would not be economically viable.**

CONCERNS ABOUT RADIOACTIVE WASTE AND REGULATORY CAPABILITIES

The Czech Republic does not have an interim storage facility for spent fuel or radioactive waste.[23] Although a storage facility is currently under licensing at Dukovany, it is designed for 600 t waste from NPP Dukovany only.[24] Waste from Temelin is explicitly excluded from

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[20]Information Confirmed by the Czech Governmental Expert Group to the Austrian Government, March 1993.

[21] If comparable international costs are applied for completion, with the assumption that 50% of the remaining equipment will be supplied by the Czechs at 30% of standard Western costs, the cost for completion is $1.7 billion instead of $770 million. Additional costs may arise from delays, additional fundamental redesigns, or a lower stage of completion than claimed by CEZ.

[22]Sicherheitstechnische Bewertung des Kernkraftwerkes Stendal, Block A, vom Typ WWER-1000/W-320, GRS-99; Supplementary Facts to the Press Conference, March 20, 1991, NPP Stendal Ltd, Management (March 27, 1991).

[23] Study on the Safety of the Planned Dry Cask Interim Spent Fuel Facility at NPP Dukovany, The Academic Senate's Project on Nuclear Safety of the University of Vienna, Sponsored by the Austrian Chancellory, Vienna 1994.

[24] From the ongoing licensing procedure for the dry cask interim spent fuel storage facility at NPP Dukovany: Minutes of the EIA Public Hearing, Rouchovany, October 29, 1992, pp 9, 10, 77; Document from CEZ. Meeting of the Councils of Dukovany and Rouchovany, December 16 & 17, 1992, pp 25, 26; Siting Decision of the District Council Office, Trebic, April 1, 1993, pp 3, 4.

this site, contrary to the statement of the Ex-Im Bank.[25] In addition, plans for interim waste storage facilities have met with strong local opposition.

Any judgement as to the adequacy of Czech governmental capability to assure the safe construction of the Temelin Reactors must take into account the fact that substantial work at Temelin occurred under the supervision of the previous Communist Government. The CzAEC did not follow international standards and was constrained in carrying out its responsibilities.

In January 1993, the new Czech Republic established the State Office for Nuclear Oversight to assume the responsibilities of the commission. Since this agency is so new, it appears that it would be difficult to determine whether it will be able to perform its functions properly.

QUESTION AS TO WHETHER TEMELIN IS THE LEAST-COST OPTION

The Ex-Im Bank relies upon a seven-volume energy study by the Belgian "Tractebel Nuclear Consultants" for its conclusion that Temelin's completion is the least-cost alternative. The study is seriously flawed and completely fails to consider measures to reduce electricity demand.

Tractabel did not address the absolute least cost option which is no new construction, but assumed a need for additional electricity. However, a 1992 U.S. consultant prepared for the Czech Ministry of Economics and Privatization found that CEZ can meet demand easily for the next ten to fifteen years. The study concluded that "the continuation of construction [of Temelin] makes no economic sense".[26]

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[25]Ex-Im Bank, Office of Public Affairs, "Ex-Im Bank Financing for Temelin Nuclear Power Plant Questions and Answers," January 27, 1994.

[26]Nucleonics Week, 4 (June 25, 1992); Power International, Supporting Material for the Czech Republic Government Decision about NPP Temelin (I. Benes auth.) (May 23, 1992).

Second, a World Bank economist has raised doubts about the accuracy of data on electrical demand and costs supplied by CEZ for use in the Tractebel study.[27] The study employed an overly simplistic model of the relationship between economic growth and electrical consumption. Tractebel used a regression analysis for the five years ending 1991. This is too brief a period to provide meaningful results under any circumstances and obviously so when Czechoslovakia was undergoing a major economic transformation.

Third, in contrast to Integrated Resource Planning as practiced widely in the U.S., the Tractebel study does not compare demand-side with supply-side alternatives. This failure is critical because of the Czech Republic's substantial conservation potential. Volume 6 of the Tractebel study finds that it is technically possible for the Czech Republic to save 3,500 MW (and 15,000 GWh) by the year 2010—i.e., more than Temelin's net capacity.[28] The study finds the "realistic" savings potential to amount to 1200 MW. The study states that the cost of these savings would be less than the long-term marginal cost of generating electricity from any source, including Temelin. However, the study fails to include this least cost option into its final conclusions.

Independent analysts have further confirmed that improved energy efficiency is the least cost solution to the Czech Republic's energy and air pollution problems. The SEVEn group, an independent research institute in Prague, found that the Czech Republic could cut its electricity demand in half if it implemented energy efficiency measures developed in

[27]D. Gray, Aide Memoire with two Attachments, World Bank, Energy Sector Mission, November 2 - 14, 1992.

[28]We were given access to this portion of the Tractebel study by the European Union's program PHARE, which funded it.

1991.[29] Even a World Bank views as feasible a 30% reduction in electricity demand through low-cost efficiency improvements. [30]

Fourth, while the study considers the alternative of building new gas units, it fails to consider the alternative of retrofitting Temelin to operate as a gas-fired combined cycle power plant.[31] The failure to consider the reuse of the existing structure is especially critical because, as noted below, Tractebel's preference for nuclear power assumes that substantial sums will otherwise be required to tear Temelin down (20.1 vs. 26.1 billion CZK for completing the reactor).

Fifth, the chosen inputs for the price of coal and other fuels are unreasonably high.[32] This skewed the comparison since fuel accounts for 70 to 80% of the total life-cycle costs. The costs for retrofitting coal-fired power stations with scrubbers have also been overestimated.[33] External costs of emissions were included for coal-fired power stations, while costs of routine and accidental emissions associated with Temelin were ignored.

Remarkably, even by its own limited terms, the Tractebel analysis found that the total system costs of a scenario without Temelin (i.e., if Temelin is completely demolished and replaced by gas units) is only 8% higher than of one with Temelin. For the period 1994 through 2010, the costs would be 223.7 billion instead of 210.8 billion CZK. A cost difference of this magnitude - which is only 65% of the assumed cost to demolish Temelin - is hardly enough

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[29]Vladimir Prochazka, Potential for Electricity Savings in the Region of Former Czechoslovakia (SEVEn, Prague, 1993).

[30]World Bank Study: Czechoslovakia: Transition to a Market Economy, May, 1991.

[31] We have performed such analysis. See M Heindler, A. Koniak, H. Lechner: "Conversion of Temelin into a gas-fired combined cycle power plant." Vienna, February, 1994.

[32]Gray, supra n. 27.

[33]Id.

to justify a recommendation for or against the project. This is especially clear in light of the uncertainties portrayed by the NUS Audit.

In fact, to arrive at even this margin in Temelin's favor, the study was required to assume that, if the nuclear project did not proceed, 20.1 billion CZK ($670 million) would be required to demolish the plant and restore the site.[34] This number seems extraordinarily high--much higher than is required in the U.S. to decommission a nuclear plant, and store the spent fuel.[35] For example, an official statement by the Prague branch of Power International noted that the demolition of the U.S 1000-MW WPN-1 and WPN-3 reactors had been estimated at $3 to 80 million each. When these reactors were cancelled in the mid-80s, they had been 65% and 75% complete, respectively.[36]

QUESTIONS AS TO WHETHER TEMELIN WILL REPLACE COAL-FIRED PLANTS

CEZ states that Temelin is critical for diversifying the country's energy supply and meeting future electricity demand. 10.1 out of 15.2 GW of the total CEZ generating capacity comes from thermal plants.[37] These plants use lignite which has a low caloric value and high

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[34]CEZ, Temelin Nuclear Plant. Material for the Meeting of Members of the Economic Committee of the Czech Parliament at Temelin, 17 (CEZ, Prague, 1992).

[35] For example, in the NRC review of decommissioning costs. Battelle projected the radiological decommissioning costs of the reference PWR (Trojan) at $124.6 million. Inside NRC, November 29, 1993, at 7. Labor and fuel storage costs are the two primary components of decommissioning costs. In the Czech Republic labor costs are far lower than in the U.S. In the U.S., decommissioning cost estimates assume that productivity may be reduced by 50% or more, because of precautions that must be taken in the presence of radiation. If Temelin is demolished before completion, the radioactive hazard will not exist to decrease productivity.

[36]Ivan Benes, Statement of Power International on the Comments by the Directors of CEZ-ETE and Skoda Prague, dated May 26, 1992. (Prepared at the Request of the Spokesman of the Czech Government) (Prague, May 31, 1992).

[37]CEZ, supra n. 34, at 4.

sulfur content. Winter air pollution inversions in Northern Bohemia are greatly exacerbated by vast quantities of sulfur dioxide, ash, and particulate emitted by the coal-fired plants.

The NSC Memo states that a "very important consideration" for it was that the completion of Temelin might permit CEZ to decommission some of the coal-burning plants.[38] However, the Temelin foreign loans may in fact postpone cleanup of CEZ fossil plants and other environmental improvements. Facing a constitutional limit for granting state loan guarantees[39], the Klaus government discontinued negotiation of a $200 million World Bank loan. The main components of this transaction would have been (a) improvement of high voltage transmission and substations; (b) upgrading of load dispatching facilities; and (c) retrofit of several lignite fired power stations.[40] The government also discontinued negotiation of a $150 million loan for reclaiming strip-mined land and other environmental projects.[41]

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[38]International Environment Reporter, Feb. 9, 1994. See also NSC, Memorandum to Kenneth Brody, President and Chairman, Ex-Im Bank, 9 (September 29, 1993).

[39]Remarks of Czech Republic Prime Minister Vaclav Klaus to the Bretton Woods Committee, Washington D.C. (October 15, 1993).

[40]International Bank for Reconstruction and Development (World Bank) / International Development Association (IDA), Monthly Operational Summary of Bank and IDA Proposed Projects (as of January 15, 1994), SecM94-116, 79 (February 4, 1994).

[41]Id.

CONCLUSION

The above review of the documents and data now available amply demonstrates that there are still many significant safety, environmental and economic questions about the Temelin reactors. These matters should be addressed with full opportunity for open technical discussions and public participation.

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Special Delegation of the
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Feb. 22, 1994

June 23, 1993

RUSSIAN ROULETTE: NUCLEAR POWER REACTORS IN EASTERN EUROPE and the FORMER SOVIET UNION

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Russian Roulette: Nuclear Power Reactors in Eastern Europe and the Former Soviet Union

Executive Summary

The April 26, 1986 Chernobyl disaster awakened the world to the dangers of nuclear power. The numerous Soviet-designed nuclear power plants became a matter of special concern, particularly to European governments. Seven years and numerous accidents later, however, Chernobyl-style plants and other dangerous plants of Soviet design continue to operate in Eastern European and former Soviet nations, threatening the health of millions of people.

Though the continued operation of these power plants and the prospect of new plants being constructed have people and governments all over the world justifiably worried, very little has been done to address the problem. In response to this inaction, Friends of the Earth released this report.

Key Findings:

* The RBMK, the VVER 440/213, the VVER 440/230, and the VVER 1000 reactor designs pose serious threats to people and the environment. Because of the inherently-flawed design of these reactors, attempts to backfit the reactors with Western technology are prohibitively expensive: it is estimated that to render "safe" the VVER 440/230 and VVER 440/213 reactors, $22 billion will be needed. In the case of the RBMK reactors, the reactors cannot be brought up to Western safety standards no matter how much money is spent.

* The disregard for safety and the casual approach to nuclear power plant operation common under Soviet government persist into the present. These risks are compounded by the countries' reliance on nuclear electricity, to the point where safety violations are routine in order to avoid shutting down the reactors and losing electricity.

* Though opposition to nuclear power is high in the Eastern European and former Soviet countries, the nuclear lobby has convinced people that the plants' continued operation is necessary.

* The Eastern European and former Soviet nations are some of the least energy-efficient in the world: in order to produce a given unit of GNP, these countries must consume a tremendous amount of energy, between 3 and 7 times more than the US. As such, they

also have the potential for vast improvements in energy efficiency. Simple technologies such as compact fluorescent bulbs and high-efficiency electric drives could reduce electricity use by 50%. This could render possible the closure of the most dangerous nuclear reactors. The countries stand to benefit economically as well as environmentally from energy efficiency improvements.

* Other supply-side options are available, including natural gas-fired turbines, cogeneration, aeroderivative turbines, and alternative energies such as solar power, wind power, biomass, small-scale hydro, and geothermal energies.

* The estimated cost of the Chernobyl disaster is approximately $300 billion. The cost of retrofitting just 24 of the 55 most dangerous reactors to dubious safety levels is $22 billion. The plan proposed by Friends of the Earth in this report for reactor decommissioning, short-term power substitution and energy efficiency investments is about $18 billion.

Policy Recommendations:

* The Soviet-designed nuclear reactors in operation should be closed down immediately, beginning with the 15 RBMK Chernobyl-type reactors and eighteen pressurized water reactors of the VVER 440/230 and VVER 440/213 types. The second phase of reactors to be closed should include the 16 VVER 1000 reactors in Russia and Ukraine, and six more VVER 440/213 reactors. These should be decommisioned as soon as substitutes for their electricity output can be brought on line.

* G7 governments should provide at least $8 billion in grants for short-term supply-side energy options including rehabilitation and better use of existing thermal power plants, gas turbine combination cogeneration plants, and aeroderivative turbines.

* Safe, sustainable energy alternatives and energy efficiency measures should also receive funding of at least $10 billion during the next five years. Construction of cleaner industries and factories to manufacture energy efficient products such as compact fluorescent lights and high-efficiency electric drives must be made a priority. Power grid improvements are needed. Public transportation systems must be constructed and improved to incorporate modern, energy-efficient technologies.

* Market forces should be used to ease the transition from dependence on nuclear power to adoption of safe and sustainable energy policies. The adoption of Integrated Resource Planning, in which all options for providing an energy service are considered and ranked by cost, should be encouraged by the World Bank, the European Bank for Reconstruction and Development, the MDBs, Western governments, and bilateral aid programs.

REPORT ON THE US EXPORT IMPORT BANK'S ERRORS IN THE ANALYSIS OF THE TEMELIN NUCLEAR POWER PLANT

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EXECUTIVE SUMMARY

On January 27, 1994 the board of directors of the US Export Import Bank (ExIm) approved an application from the Czech power utility (CEZ) for some of the work to be done on the Temelín nuclear power station. This application is for loan guarantees on the CitiBank financing of $334 million for the US goods and services to be provided by Westinghouse.

The public statement issued by ExIm at the time of this decision contains a number of serious errors. Most significantly:

1) Improper analysis of safety problems with this reactor design

2) Incorrect representation of the World Bank (WB)'s position on Temelín

3) Inaccurate evaluation of the ability of CEZ to operate NPP's

4) Oversimplified comparison with the only other Soviet/Western NPP hybrid

5) Understatement of irreversible design faults, especially premature aging

6) Incorrect claims on the state of radioactive waste storage in the Czech Republic

7) Misrepresentation of critical comments in expert reports commissioned by CEZ

8) Improper analysis of Temelín's effect on the CR economy

9) Overstatement of Temelín's positive effects on the environment

10) Omission of the numerous issues of importance to decision makers (energy efficiency possibilities, lender liability issues, etc).

The authors' sentiments are best reflected by the statement of the first freely elected Czech Prime Minister, Petr Pithart, who said in his letter to ExIm President Kenneth Brody:

> *"The question of the Temelín facility was not evaluated and discussed in my country in a way in which would enable any responsible person anywhere in the world to support its completion."*

We must conclude that the ExIm bank has done a inadequate job evaluating the facts surrounding in the Temelín project. ExIm relied mostly on materials provided by CEZ and the Czech government and even used this material in a biased selected manor. ExIm, based on their defective study, has decided that US jobs are more important that the safety of innocent lives in central Europe. Further, the arguement often stated unofficially "that the US should grab it, or else France or Germany will" given the danger is morally reprehensible. **Based on the findings of this study, we call on the US Congress to halt ExIm funding guarantees of Temelín.**

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